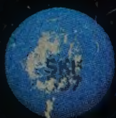
THE PILL USER'S GUIDE TO STAYING ALIVE



Stelazine
10 mg
p. 249



Quaalude
p. 178



Seconal Sodium
100 mg
p. 158



Dexedrine
5 mg
p. 135

THE LITTLE BLACK PILL BOOK

The Illustrated Guide to the Most Abused Prescription Drugs in the United States

With 16 pages in full color and complete drug interaction charts



Tuinal
100 mg
p. 167



Elavil
25 mg
p. 257



Percodan
p. 230



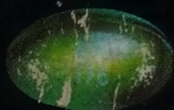
Percodan-Demi
p. 230



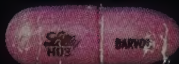
Nembutal Sodium
100 mg
p. 156



Darvon
Compound
p. 231



SK-Chloral
Hydrate
p. 169



Darvon
65 mg
p. 231



Librium
5 mg
p. 192



Valium
10 mg
p. 194

**IF YOU SUFFER FROM
TENSION • ANXIETY • DEPRESSION • INSOMNIA
• OR PAIN, AND SEEK RELIEF THROUGH DRUGS—**

**IF YOU OR ANYONE YOU LOVE HAVE TAKEN
EVEN ONE OF THE DRUGS PICTURED IN THIS BOOK—**

YOU NEED

THE LITTLE BLACK PILL BOOK

Millions of Americans take these powerful drugs to obtain significant medical benefits. Millions more use them for non-medical purposes. Few know that they may become dependent or addicted *even following doctor's orders to the letter.* Or that they may have a genetic predisposition that puts them at extra risk. Or that drug interactions can threaten their life. *Each year, more people die from prescription drugs, obtained legally, than from all illegal substances combined.*

Used properly, *The Little Black Pill Book* could save your life. It synthesizes the most important facts about each drug in a concise, readable entry. Warnings, withdrawal symptoms, and overdose treatment are given special prominence. Also included is information on how drugs work in the body, the psychological side of drug dependence, drugs and the law, dangerous pill lookalikes and drugs of deception, key questions for your doctor—and much more.

**From the producers of the million-copy
bestseller THE PILL BOOK**

The purpose of this book is to provide educational information to the public concerning the majority of psychoactive prescription drugs which are presently utilized by physicians. It is not intended to be complete or exhaustive or in any respect a substitute for personal medical care. *Only a physician may prescribe these drugs and the exact dosage which should be taken.*

While every effort has been made to reproduce products on the cover and insert of this book in an exact fashion, certain variations of size or color may be expected as a result of the photographic process. Furthermore, pictures identified as brand name drugs should not be confused with their generic counterparts, and vice versa. *In any event, the reader should not rely upon the photographic image to identify any pills depicted herein, but should rely solely upon the physician's prescription as dispensed by the pharmacist.*

THE LITTLE BLACK PILL BOOK

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Contents

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Introduction

by David E. Smith, M.D.
Director/Founder, Haight-Ashbury Free Medical Clinic,
San Francisco, California

Americans take pills at an astonishing rate. More than 2 billion prescriptions a year are filled at a cost of over $10 billion. Twenty percent of these prescriptions are for psychoactive drugs. In addition, a very large number of illicit pills containing psychoactive substances are consumed each year. When these drugs, which often have a profound effect upon the brain, are taken under supervised medical circumstances for appropriate therapeutic purposes they can bring significant benefit to the individual. All too often, however, they are misused when people are misinformed or when they develop addictive disease by continuing to use drugs compulsively despite adverse effects on physical health, mental functioning and economic and social behavior. When misused, pills not only damage the individual but have damaging effects in relation to family, workplace, and other aspects of daily living, including driving. Many thousands of people are unnecessarily injured or killed each year because of the intoxicating effects of psychoactive drugs—particularly when they're combined with alcohol, our country's number one drug problem.

Consumers of drugs that affect the mind are bombarded with a bewildering array of inaccurate or out-of-date information from medical sources, electronic and print media, peers, and so on, so that very often they are totally misinformed.

The Little Black Pill Book provides you with the latest information medical science has about psychoactive drugs, stressing new research on the brain's function and its interaction with drugs. Critical variables of pill abuse are discussed, like the physical characteristics of the individual taking the drug, psychological characteristics, including atti-

tude, and the environment in which the drug is taken. All of these factors can influence the short-term and long-term effects of a drug.

Drug abuse, one of our country's major health problems, is the third leading cause of death, after heart disease and cancer. Our clinical experience over the past 15 years at the Haight-Ashbury Free Clinic has clearly shown that some people can use psychoactive drugs with maximum therapeutic benefit and minimal danger while others, when they begin taking psychoactive drugs, abuse them and damage their physical, mental, and behavioral health. Others repeatedly abuse drugs in a compulsive fashion despite being aware of continued adverse consequences. The pattern of compulsive abuse is seen in approximately 10 million alcoholics in the United States, 2 million nonnarcotic drug abusers, and 1 million narcotic drug abusers.

We now recognize compulsive abuse of psychoactive drugs as an addictive disease. It is apparent from clinical and laboratory research that the disease is a product of genetic factors and environmental influences. A history of drug or alcohol abuse in the family predisposes you to a higher probability of developing addictive disease; you need to be more informed and much more careful before taking pills or other substances that are psychoactive.

When addictive disease develops, treatment is required, which may range from medical management of physical complications to appropriate medical care of an overdose to the administration of other medications to reduce physical dependence.

Getting off is one thing, but staying off is another. For the individual with addictive disease controlled use of psychoactive substances becomes very difficult. Unfortunately, many such consumers deny the negative effects of drugs. Somehow they must be motivated to move into what professionals call recovery, which means living a comfortable and responsible life without the use of psychoactive drugs. To ensure recovery the diagnosis of addictive disease, like that of any other disease, must be based on objective, nonjudgmental criteria. It is important that the individual's need for recovery be balanced with the appropriate use of medicine for a specific, well-documented medical complaint. The information in this book is an invaluable reference for consumers, family, employers, and others whose lives are

affected by drug addiction and the problems that accompany rehabilitation.

The Little Black Pill Book provides objective information not only about drugs, but about their complicated interaction with the individual and his environment. We hope you will use this book and your pills wisely, and that if you see you are developing a problem, you will seek help from medical and nonmedical sources.

In an Emergency

A drug overdose; unusual and severe reactions to a pill; symptoms of drug withdrawal. These are life-threatening drug emergencies and require immediate medical attention. Knowing what to do, staying calm, and acting fast can save a life—perhaps your own.

SIGNS OF A DRUG EMERGENCY

The most common signs of drug emergencies are detailed in each drug profile in this book, under the headings "Withdrawal Symptoms" and "Overdose and Treatment." Symptoms can be seemingly mild: a vague sense of discomfort, a headache, feeling tired, or having an upset stomach. With small overdoses of certain pills, such symptoms will probably disappear quickly and cause no further problem. But identical symptoms can also be the beginning of a serious drug emergency that can, in a matter of minutes, result in respiratory collapse, seizures, a heart attack, and coma. It is most unwise for a layperson to assume an adverse reaction is anything less than serious, except when a physician has specifically warned in advance that a reaction is possible, and has given instructions on what to do if it occurs.

Drug emergencies can be very confusing even to a doctor. An amphetamine overdose has symptoms that look like narcotic withdrawal; a barbiturate overdose, on the other hand, can masquerade as stimulant withdrawal. While proper first aid is relatively simple for any drug emergency caused by one of the pills in this book, the appropriate treatment afterward—in an emergency room or doctor's office—can differ greatly depending on the drug involved. Sometimes extensive medical tests are required before a doctor can be sure how much of a drug was taken, or whether someone is experiencing an unusual reaction to a

drug. It is therefore essential that a victim of any drug emergency—an overdose, an adverse reaction, or withdrawal—be rushed to a hospital as soon as possible, even while first aid is underway.

Whenever possible, the pill bottle or a sample of the drug involved should accompany the victim to the hospital, so the emergency room staff can quickly identify the medication and begin proper treatment without delay.

GENERAL RULES FOR ALL DRUG EMERGENCIES

1. *Don't delay in phoning for help.* If the area where you live has a special number to call in an emergency, dial it and describe the situation. Or dial "0," (Operator), tell the operator it's an emergency call, and ask to be connected to Poison Control. Or find the number for Poison Control in your phone book, or from Information, and call it directly. When you reach Poison Control, be prepared to tell the person who answers:

- your location;
- what was taken and how much;
- condition of the victim (conscious or sleeping, vomiting, having convulsions, etc.);
- approximate age and weight of the victim;
- chronic medical conditions of the victim (such as diabetes, epilepsy, or high blood pressure), if you know them;
- what medicines, if any, the victim takes regularly.

2. *Never use a second drug.* Don't give a stimulant (even coffee) to a drug overdose victim who seems to be extremely tired, for instance, because the combination can be more dangerous than the original overdose drug.

3. *Assume the worst.* Even if you aren't certain that a person is suffering from an overdose or drug withdrawal, assume he is and get medical help immediately.

4. *Don't be afraid to try to help.* You won't be arrested or otherwise penalized for trying to help during what you believe is a genuine emergency. It's better to apologize later—if you made an honest mistake by rushing someone to the hospital who didn't really have to be treated—than take a chance on letting the person suffer or possibly die. Even if someone doesn't think he needs help, or doesn't want it, call for help anyway, if *you* think it's needed.

5. *Don't try to force an unconscious person to drink or eat.* He could accidentally choke if you do.

IF THE VICTIM IS CONSCIOUS

1. *Ask the victim if an overdose could have occurred,* or whether withdrawal from drugs is the likely cause of the symptoms. If there is any doubt whether overdose or withdrawal is responsible, proceed as though an overdose has occurred. If you are positive that withdrawal is the cause—but *only* if you are positive—then immediately rush the victim to a hospital, following steps 2, 6, and 7 below.

2. *Phone for help immediately.* Call Poison Control, or a hospital or doctor. Tell them, if you know, what drug is involved, and describe the symptoms as well as you can (dizziness, slow or rapid breathing, pinpoint eye pupils, general weakness, etc.). Follow the instructions you receive.

3. *Induce vomiting.* Although in general you should not cause vomiting for poisoning (because some poisons, such as lye, can be more damaging if they are vomited) overdoses of any pill described in this book—and most other medicines—are best treated by forcing the victim to empty his stomach.

Vomiting can be induced by making the victim swallow a spoonful of ipecac syrup (a teaspoon for a child, a tablespoon for an adult) followed by 2 to 3 glasses of water (one glass for a young child). Ipecac syrup is available from most pharmacies in small bottles, and is often included in first-aid kits. If vomiting does not take place within 15 minutes, repeat the dose once.

Vomiting can sometimes be caused by tickling the back of the victim's throat while he is in a "spanking" position (such as a child laying face down over your lap). You should use a spoon or similar household implement; be careful if you use your finger, since you might receive a painful bite if the victim gags.

Not recommended ways to induce vomiting: forcing the victim to swallow mustard powder or large amounts of table salt. Neither method works reliably; excessive salt can make the victim's condition worse.

4. *Administer an antidote.* Activated charcoal is the only safe substance useful as an antidote to overdoses of any pill in this book. When swallowed, it absorbs some of the

drug remaining in the stomach after vomiting. Charcoal is unpleasant to take. It stains the gums and mouth black, feels gritty, and tastes bitter. To make it more palatable, it can be mixed with a small amount of cocoa and swallowed dry, or mixed with water in a dark-colored glass so it doesn't look so bad.

5. *Phone for help again* if it has not arrived.

6. *Talk to the victim* reassuringly, to help keep him conscious and lessen his fears. Give as much emotional support as you can and maintain what is called a "reality base," by identifying yourself over and over so he knows who you are and understands you are trying to help. Maintain eye contact, hug the victim occasionally, and repeatedly tell him he will be all right. Keep him abreast of what's happening around him: "The ambulance will be here any minute"; "The neighbors are waiting outside to bring in the medics."

7. *If help does not arrive* and you have good reason to believe it will not come soon, take the victim to the nearest hospital yourself—by car, taxi, or any other way you can arrange.

IF THE VICTIM IS UNCONSCIOUS OR HAVING CONVULSIONS

1. *Do not try to make the victim vomit.* An unconscious person can choke to death on his own vomit, or on food or liquid he is being forced to ingest.

2. *Find out if the victim is breathing.* Listen closely to the nose, mouth, and chest. If you hear no sound, and see no chest movement, he has probably stopped breathing. The skin turning blue (initially under fingernails and toenails) is another sign that breathing has stopped, or is severely restricted.

3. *If the victim is breathing, phone for help immediately.*

4. *If the victim is not breathing, perform mouth-to-mouth resuscitation.* Mouth-to-mouth resuscitation is easier than you think. Lay the victim on his back. Force the mouth open and check that there are no visible obstructions. Pull the tongue forward if it blocks the throat.

Move the victim's head so the chin juts out, to help open the airway. With one hand, pinch the nose closed. With the other hand firmly holding the chin, keep the mouth open.

Take a deep breath and press your lips to the victim's. Force your air into his lungs as though you're blowing up a balloon. If there is a lot of resistance, and the victim's chest does not expand, check inside the mouth again for obstructions. If you are alone, continue mouth-to-mouth resuscitation for at least 10 minutes before phoning for help, or until the victim starts breathing on his own.

While calling for assistance at the same time you're helping the victim breathe, *do not stop mouth-to-mouth for more than a few seconds at a time.* You can grab the phone, dial "0," then fill the victim's lungs a few more times. Pause again and begin to describe the emergency, then go back to your mouth-to-mouth resuscitation. Complete your explanation between breaths. If a child is the unconscious victim, carry the child close to the phone to minimize time lost in administering mouth-to-mouth.

If possible, have someone else phone for medical help while you continue mouth-to-mouth resuscitation. Do not stop until help arrives, you are too exhausted to continue, or someone else takes over from you.

5. *If convulsions occur* (muscle spasms throughout the body, or suddenly rigid muscles), lay the victim on his stomach, and turn the head to one side to keep him from inhaling anything he might vomit up. Keep him warm with a blanket, and push away from the immediate area anything he might bump into during severe spasms.

6. *Phone for help again* if it has not arrived.

7. *If help does not arrive* and you have good reason to believe it will not come in time, take the victim to the nearest hospital yourself—by car, taxi, or any other way you can arrange. Try to keep an unconscious or convulsive victim lying face down during transport, to lessen the chance of choking.

IF YOU ARE THE VICTIM

1. *Phone for help immediately.*

2. *Unlock your door* if you decide to wait for someone to arrive, so help can reach you without delay if you lose consciousness.

3. *Induce vomiting.* Details of how to make yourself vomit are given on page 3. *Do not* take ipecac syrup if you

think you are close to losing consciousness, since vomiting while unconscious can make you choke.

4. *Take an antidote.* Details of how to use activated charcoal are on pages 3–4.

5. *Phone for help again* if it has not arrived.

6. *Write down the drug name* or keep the pill bottle with you so if you lose consciousness, others will know what drug is involved and can begin treatment without delay.

7. *Do not try to "cure" yourself,* for example by taking a stimulant or drinking coffee to offset a sedative effect. You may do more harm than good.

8. *Do not drive* if you decide not to wait for help. Take a taxi, or try finding someone to drive you to the nearest hospital.

HOW YOU CAN HELP MEDICAL PERSONNEL

1. *Collect information* about the kind of drug involved—whether a barbiturate, amphetamine, tranquilizer, narcotic, or some other drug. This can be vital to a doctor trying to decide on the proper emergency treatment. If possible, find a sample of the drug to bring to the emergency room or give to ambulance attendants. Or try finding an empty pill bottle.

2. *Was the drug legitimate*? Try learning if the drug was purchased from a pharmacy or bought on the street. There are often big differences between legitimate drugs and street drugs, and the source can be important to a doctor's decision on how to treat the victim.

3. *What was taken with the drug?* If you can discover whether the drug was used with alcohol, cocaine, marijuana, another drug, or any other substance, tell the medical personnel.

4. *How much was taken?* Try to determine how much of the drug was used, and how recently.

5. *The victim's drug history* can be extremely important to a doctor deciding how tolerant the victim is to the drug involved in the emergency. If you know how long the victim has been using a specific drug, and the amounts, such information may save his life.

BE PREPARED

Every household should be ready for a drug emergency. Now is the proper time—*before* an emergency arises—to do the following:

1. Get the phone number of your local Poison Control center and write it down near your telephone with other emergency phone numbers such as fire and police.
2. Find out NOW which hospital is closest to you, and think about how you can get there quickly in an emergency.
3. Buy a 1-ounce bottle of ipecac syrup at your pharmacy, and make sure you understand how to use it properly. Ask the pharmacist. Keep it where you can find it quickly in an emergency.
4. Learn how to give mouth-to-mouth resuscitation. Practice at least once with a friend so you are not so nervous in an emergency.
5. Keep all medicines out of the reach of children, who are the most frequent victims of accidental pill overdoses. Put drugs in a locked cabinet if possible.
6. Never remove the labels from pill containers. They can provide vital information in case of an emergency.
7. Discard all medicines after you no longer need them.
8. Never take a pill—or any medication—without knowing what it is, and what its possible effects on you may be.

How to Use This Book

If you suffer from tension or anxiety and depression and seek relief through drugs, you need *The Little Black Pill Book.*

If you face fatigue or insomnia and use pills for treatment, you need this book.

If you are plagued by pain and want up-to-the-minute information about the most potent pain killers available, you need this book.

Used properly, *The Little Black Pill Book* can save your life. It can keep you from getting hooked on a drug prescribed, in good faith, by your doctor. Or it can prevent you from becoming dangerously involved with pills you decide to take on your own.

Most of the several hundred drugs described in this book are psychoactive, which means they affect your central nervous system. Psychoactive drugs include most stimulants, tranquilizers, and narcotic analgesics (pain killers), as well as a few other broad categories of drugs. All are powerful medications that can drastically change your perception of reality. They are used legitimately, of course, to treat recognized medical ailments. But they are also used for a multitude of nonmedical purposes, such as improving sexual performance or providing a "high."

The Little Black Pill Book is intended as a guide to the medical uses of pills. But we recognize that drug abuse is widespread, and this book also gives you the straight story about pills commonly used for "recreational" or other nonmedical purposes.

The Little Black Pill Book is divided into three main sections:

I. Important chapters about the many aspects and dangers of drug use and abuse in the 1980s, whether caused by a doctor's improper prescription, by your own decision to use a drug, or by your individual response to a drug.

II. Easy-to-read profiles of the most abused pills in the country.

III. An extensive color index of pills, using actual-sized, color-coded pictures which can help you identify drugs by sight—including a section of lookalike, or counterfeit pills. This section will refer you to detailed information elsewhere in the book about the pill you've identified.

SECTION I: PILL ABUSE IN THE 1980s

This section will help you understand how pills are being used—and abused—in this decade. You will learn whether your genetic makeup, or your family history, makes you a likely candidate for addiction. And you will learn what addiction really means.

Whenever you take a pill, it has certain effects in your body. Sometimes you will feel nothing while the chemicals in the pill spread throughout your body until they are broken down into components that your system can eliminate. Other pills, including the psychoactive medicines described in this book, have a more distinct impact on your senses: while they are in your system you may feel elated, perhaps, or tired, or confused. This section will explain how pills work inside your body, and tell you how physical addiction takes place.

The influence your surroundings may have on your addiction potential—your neighborhood, your friends, your attitude toward pills—is also detailed in this section. The pressures put on you by people you work with or spend time with in the evening can lead to addiction as surely as your physical reaction to a drug. This section will explain the why, and the how, with the help of case histories of people who have abused pills.

Some of the case histories are based on clearly established patterns of drug use, but do not refer to specific people. Others describe the experiences of real people; here, names and other identifying details have been changed.

These case histories demonstrate that drug abuse is not just a matter of taking too many pills. It involves individuals, using particular drugs at particular times and under specific circumstances, perhaps mixing drugs unwisely, or perhaps even *not* using them when they are needed. Each

person's history of drug use, or abuse, is different in detail, but the case histories will help you understand broad similarities and overall trends in the use of pills.

Specifically, this section will tell you:

- what drug abuse really means and how it occurs. Did you know that some people, after taking only a few pills, become physically or psychologically dependent on them? Others require several times the dosage—and weeks or months more of usage—before dependence begins. Which group do you belong to? This section will help you find the answer;
- what is meant by "abuse," "tolerance," "cross-addiction," and other words frequently misused even by drug specialists;
- what kinds of drugs cause physical dependency and/or addiction; and which ones result in psychological dependency;
- how you can avoid addiction *without* giving up pills;
- how to cope with a drug problem if it has already occurred in your family;
- what laws affect your pill use, and some commonly asked questions and answers about pills and the law;
- what a doctor is obliged to tell you about the pills he prescribes;
- what information about pills you should be getting from your pharmacist.

SECTION II: DRUG PROFILES

Easy-to-read profiles of the most abused prescription drugs in the United States comprise this section. The drug profiles have been grouped according to their main similarities:

Stimulants. Often called "speed," these can keep you awake for long periods of time and cause some degree of euphoria. Most are amphetamine compounds, first used decades ago to clear stuffy noses and sometimes prescribed today to help people lose weight.

Sedatives. These include sleeping pills and tranquilizers, among them many of the most widely abused medications ever manufactured. Barbiturates, sometimes employed in suicide attempts, are described, along with drugs that act like barbiturates but are chemically different. Other sedatives in this section are benzodiazepines—like Librium and

Valium—which are safer than barbiturates but still very dangerous if misused.

Narcotic Analgesics. These powerful drugs are exceptionally effective in relieving pain, but are also dramatically addictive—even deadly—when used improperly. They include codeine, morphine, and opium.

Antipsychotics. These drugs are more often abused by physicians who prescribe them improperly than by individuals taking them without medical advice. Although they are extremely valuable in treating some forms of mental illness, some of these drugs are used to subdue psychiatric patients for the convenience of a hospital's staff, rather than to benefit the patient. Their side effects can be extremely unpleasant and dangerous and often cannot be reversed when the drugs are discontinued.

Antidepressants. Used to treat severe depression, the tricyclic antidepressants are among the most potent drugs in use today, and can cause many dangerous side effects. Serious illness, even death, can result from using them without full medical supervision.

Each group of drugs is introduced by such general information as their history (when they were first created, and why) or their most serious dangers. Some groups are further divided according to chemical similarities. Thus the chapter on sedatives has a general introduction, then more detailed introductions to the five categories of sedatives: barbiturates, barbiturate combinations, barbituratelike sedatives, benzodiazepines, and benzodiazepinelike sedatives. The chapter on antipsychotic drugs has only one introduction because all the drugs in the group are chemically similar. The groupings reflect not only chemical similarities but also similarities of usage, side effects, and interactions with other drugs.

Following the introductions come further details about the various drug families, keyed to these main features:

1. *Precautions*: Any drug can harm you if you are unusually sensitive to it. Here you will be alerted to possible allergic reactions and other important precautions you should be aware of when taking any drug in the group. The precautions are serious warnings you should *always* heed, such as warnings against driving a car if a drug can slow your reactions to an emergency on the road.

2. *Interactions*: Some drugs should never be taken if you are already taking certain other drugs. Drugs can also react adversely with alcohol, certain foods, and even sunlight. Such warnings will be found here, and are also summarized in a table on pages 97–99.

3. *Common side effects*: These are the side effects that should be expected when using the drug. Common side effects may vary in duration and intensity depending on drug dosage and setting. They may also vary depending on what other drugs, food, or other substances you have used along with the drug. You will not find a complete list of every reported side effect: with some drugs, the list could be several pages long. We have selected only the most frequently experienced side effects for inclusion. If you experience a side effect not listed contact your physician immediately.

4. *Serious adverse effects*: These are more unusual—and more serious—side effects of a pill that should cause you concern. If you experience any of these effects, *call your doctor immediately.*

5. *Dependence and addiction*: This very important part of the drug profile alerts you to dependence potential, or chance for addiction. Some drugs can rapidly cause physical dependence; if you abruptly stop using them, you may experience serious withdrawal symptoms such as hallucinations or even coma. Others seldom result in physical dependence but can lead to serious psychological dependence; you may crave the drug even though you are not suffering from withdrawal pains.

6. *Withdrawal symptoms and treatment*: No one should treat drug withdrawal without the help of a trained medical professional. Here you will learn how to recognize withdrawal symptoms when they occur, and the most commonly used treatments—which can vary from those only possible in a hospital's intensive care room to simple verbal support until the symptoms fade.

7. *Overdose symptoms and treatment*: The most commonly observed symptoms of drug overdose are described, together with immediate steps you, and a physician, must take during an overdose emergency. If you suspect an overdose, *the victim must be rushed immediately to a hospital for treatment. Bring the pill bottle if possible, so that the emergency room staff can quickly identify the drug*

involved and begin proper treatment without delay. Every overdose is a medical emergency. If you suspect an overdose, don't delay. If you are mistaken, you can apologize later; if an overdose has really occurred, you can save a life.

8. *Usage in pregnancy*: Many drugs cross the placenta of a pregnant woman and enter the unborn infant's blood system. Some can have a serious effect on the fetus; a few may cause birth deformities and brain disorders in the newborn. Because there is almost always a gap of several days to a few weeks between the time of conception and confirmation of pregnancy, women who think they may be pregnant—or who are hoping to become pregnant—should avoid any drug that has the slightest chance of adversely affecting a fetus.

9. *Usage during breast feeding*: Just as some drugs can pass from a pregnant woman to her unborn baby, many drugs can be transferred from a nursing mother to her young child during breast feeding.

10. *Usage by the elderly*: People in their 60s and beyond usually metabolize food more slowly than younger men and women; they also metabolize drugs more slowly. Since drugs take longer to be eliminated from their systems, the elderly face an increased probability that the drugs they take can reach potentially dangerous levels.

11. *Usage by children*: Children are usually more sensitive than adults to the drugs described in this book. Recommended dosages are often lower, and children must be watched for side effects which they may not even realize are occurring.

Individual Drug Listings

Following the general description of the drug family come individual listings of each drug:

1. *Generic and brand names*: Most of the drugs in *The Little Black Pill Book* are listed first under their generic, or chemical, names, and then by one or more brand names. Drug manufacturers usually market pills under a brand name, which may have a syllable (or a few letters) that sounds like the chemical name. For example, *dex*troamphetamine sulfate is the generic name for a stimulant called *Dex*ampex by one manufacturer; chlordiaz*e*poxide hydro-

chloride is the generic name for a popular tranquilizer called *Ze*tran by one maker; chl*or*proma*zine* hydrochloride is the chemical name for an antipsychotic drug one manufacturer calls Th*orazine*.

Some drugs, however, are listed by brand name first, followed by the chemical names of their ingredients. (This is the case with barbiturate combination products, where several drugs are joined to make a single brand-name pill. Butseco, for example, is the brand name of one drug made up of phenobarbital, butabarbital sodium, and secobarbital sodium). Brand-name listings avoid the confusion which would be inevitable if combination drugs were listed several times, under the chemical name of each ingredient.

The brand names are followed by the short form of the name of the manufacturer. Companies' complete names and addresses are listed in the current Physicians' Desk Reference (PDR) or similar publications available at your library or through your druggist or doctor.

After the name or names in the drug profiles, you will find an indication of the drug's classification by the federal government according to its potential for abuse. A few drugs in this book carry no such designations since the government does not consider them addictive; but they require prescriptions. Drug classifications appear as Schedule I through V (see chapter 7).

2. *Street names*: If a pill has a common street name, it will appear here.

3. *Most commonly prescribed for*: These are the approved medical indications for each drug. Most drugs are prescribed for certain symptoms, but often a drug may be used in combinations for quite different reasons. Check with your doctor if you are not sure why you were given a certain pill.

4. *General information*: Any important information that makes this particular drug different from other chemically related drugs.

5. *Onset and duration*: Where appropriate, the profile tells you how quickly the pill takes effect, and how long its effect lasts.

6. *Dosage*: We list the maximum and minimum amounts of a drug usually prescribed; however, you may be given substantially different dosage instructions by your doctor. It is important to check with a physician if you are at all

confused about how often to take a pill, when to take it, or why a dosage was prescribed that is different from those mentioned in this book. Do not change the prescribed dosages on your own; call your doctor first. Dosages differ for various age groups, and for different usages of a particular drug; information about this is provided here.

7. *Available sizes*: Sizes of tablets and capsules are listed at the end of each profile. Some pills release their contents slowly into your system; they are called "sustained-release" pills.

Important note: If you are using this book to look up information about a particular drug, we urge you to read *all* the information about that drug. Do not simply check the portion of the drug profile that gives you the brand names, the reasons the pill is most often prescribed, and the usual dosages. Read also the introductory material pertaining to all the drugs within the same chemical class. If you read only individual drug profiles, you may miss a key warning about the pill, and suffer seriously because of it.

SECTION III: COLOR INDEX

This section is designed to help you identify pills by their color, shape, and size.

While every effort has been made to depict the drugs accurately, certain variations of size or color may occur as a result of the photographic process. Also, you should never rely solely upon the photographic image to identify any pill, but should check with your pharmacist if you have any questions about identification.

Some people may view a peach-colored pill as pink; others will see it as orange. If you don't see the pill you're looking for in one section, check the other sections where colors are similar.

Although many dosage sizes and shapes are included, not all dosage forms of a specific drug can be shown—only the most popular.

Most although not all of the drugs in the color index can be matched with the pill you are trying to identify by comparing the following:

- the imprinted company logo (e.g., "Lilly," "Roche");

- the product strength (e.g., "250 mg.," "10 mg."), which is often printed on pills;
- the product code number (if imprinted).

Because many generic pills look the same as their brand-name counterparts, some manufacturers have started printing the product name on the tablets and capsules.

The color index also contains a section on lookalike drugs, which will help you identify them. Lookalike drugs are either fake prescription drugs or legal over-the-counter products made to look like the real thing (see chapter 8).

THE BEST WAY TO USE THIS BOOK

Look up the drug you are concerned about, either by checking the index or turning to the chapter that deals with similar drugs.

Read about the *whole* class of drugs that includes the one you're most interested in.

Check the individual drug profiles to understand how drugs that are closely related still have important differences.

Read section I to understand fully your own risk of drug dependence or addiction, and to get guidelines on safe drug use.

If you have any further questions about your pills, or if something you read in *The Little Black Pill Book* does not jibe with instructions you have been given, contact your doctor or pharmacist. Make it a rule to know everything you can about what you're taking—before you take it.

I
Pill Abuse in the 1980s

1
What Is Drug Abuse—and Who's at Risk?

Each year more people die from prescription drugs, obtained legally, than from all illegal substances combined.

Tranquilizers, muscle relaxants, sleeping pills, stimulants, appetite suppressants, pain killers, antipsychotics, and antidepressants—most of them obtained legitimately to ease the agonies of life—account for more emergency room visits and deaths than heroin, cocaine, PCP, marijuana, speed, and LSD. According to a report to Congress by the General Accounting Office (GAO) in October 1982, "The abuse of prescription drugs, most of which are obtained at the retail level, results in more injuries and deaths than all illegal drugs combined."

Not all drug misuse or abuse lands somebody on an emergency room trolley or a coroner's slab. But drug treatment programs and detoxification units are finding themselves with a new kind of client on their hands: the average, middle-class, employed, mainstream you-or-me with a pill problem. Most of these pills are by prescription from doctors or dentists. The abusers get hooked on them despite the best of intentions—and despite symptoms and warning signs of drug abuse that they don't recognize and respond to early enough. They don't think the drugs they take are capable of being abused, or themselves capable of abusing them.

THE TRADITIONAL vs. THE NEW ABUSER

Traditionally (and as used in the GAO report), drug abuse is defined as any "nonmedical use" of a substance (usually a psychoactive drug, one which affects the central nervous

system) for "psychic effect," dependency, or suicide. Anybody who takes a pill in a way that differs from a doctor's expressed orders is by this definition an abuser: for example, the ad executive who bums a tranquilizer from a colleague before pitching a new multimillion-dollar client; the college student who takes a pill to improve sex; or the comedian who keeps taking his pain medication long after his pain is gone, first because it makes getting up on stage or in front of a camera that much easier, and then because if he doesn't take it he doesn't feel normal. Jerry Lewis, who reveals this side of his past in his autobiography, is just one of a number of celebrities going public in recent years with a pill or mixed-substance abuse problem (or getting publicly busted for illegal possession).

Of course, entertainers have long been media favorites for their "recreational" drug taking: not the least are late-greats like Judy Garland, Janis Joplin, Elvis Presley, and John Belushi. And professional sports stars are lately vying with Hollywood for who gets the biggest cocaine use headlines. Less expected (although as widely reported) was the confession by former first lady Betty Ford that she too had a drug problem. Hers was a grievously common pattern: pain killers and tranquilizers prescribed on a constant basis for fourteen years, to prevent the spasms and pain of a pinched nerve in her neck and arthritis, all combined with alcohol. Though perhaps some people viewed her inability to stop taking the drugs as "weak," in fact once her drug-taking pattern was established, her body required these chemicals to maintain a physiological equilibrium. Any attempt to quit would have thrown her into severe and perhaps life-threatening withdrawal—worse, with the combination of drugs she was taking, than from heroin. In other words, Betty Ford was hooked. In order to quit, she required medical detoxification procedures and close supervision at the Long Beach Naval Hospital's Drug and Alcohol Rehabilitation Center.

Betty Ford did not set out to abuse drugs. Hers was "nonmedical use," however, in that she combined her drug taking with alcohol.

Georgette Bowen (not her real name) is no celebrity. Her story would never make headlines, yet it is startling, for Georgette followed her doctor's orders to the letter. He prescribed Ativan, a drug in the same chemical class as

Valium, for symptoms of anxiety and sleeplessness, possibly associated with menopause. Georgette was fifty at the time. Her doctor warned her not to mix Ativan and alcohol, which wasn't a problem because after her childhood experiences with her alcoholic father, she hardly ever drank; she was rather strongly against recreational drugs of any kind. She wasn't even sure that she wanted to take tranquilizers, but her doctor assured her that 3 milligrams a day was a reasonably modest dose. And the Ativan did help her sleep, which after a long siege of insomnia was a great relief.

Georgette took her pills, though never as regularly as the doctor ordered. After less than a year she decided suddenly to discontinue them. Five days later, Georgette's insomnia returned with a vengeance. Even worse, periodically during the day her whole body would begin to shake. She could hardly eat. She remembered all too well her father's alcoholic DTs. Georgette thought she must be going crazy. Her husband, a policeman, wondered about that himself. Georgette called her doctor and he advised her to return to the Ativan. Sure enough, her symptoms disappeared. Two weeks later she tried to stop again, but the terrible symptoms—worse than what she had suffered before she began the original course of Ativan—resumed. Again the doctor told her to go back on the pills. When her husband questioned whether the symptoms could have anything to do with the drug itself, the doctor said no, not at that low a dose. The doctors at the emergency drug clinic where Georgette ended up disagreed; they said that Georgette was in withdrawal.

THE "TEN-PERCENTERS"

Georgette, with her family history of alcoholism, is one of the 10 percent of the population addiction research has recently shown to have a "psychobiological predisposition" to drug dependency and addiction at *normally prescribed dosages.*

Anybody can develop a physical or psychological dependency on a psychoactive drug after taking high doses of it over a long enough period of time. And anybody can become addicted to a drug who uses it compulsively whatever the terrible consequences. But people like Georgette can get hooked and become addicts without doing any-

thing to "deserve" it. They can get hooked despite following doctor's orders exactly. They can get hooked *because* they follow doctor's orders exactly.

With a parent who had a history of substance abuse, Georgette was 35 times as much at risk of dependency and addiction as the rest of the population. If both of her parents had had drug or drinking problems, Georgette would have been 400 times as much at risk. Georgette's family history predisposed her to addiction to a prescription drug that may have been safe for a person with a different genetic makeup. Because her doctor was uninformed about these important facts, Georgette became a "new addict."

Lack of information, misinformation, inconsistent and contradictory attitudes toward prescription vs. recreational drug taking—all have created an environment in which anyone who takes a pill today for pain or mood or tension or sleeplessness is potentially at risk. If Georgette, with her strict scruples about drug taking, could slip blindly into drug abuse, "so could the Easter Bunny," commented her 25-year-old, marijuana-smoking son.

HOW WE GOT HERE—A SHORT HISTORY OF DRUG USE

Since the beginnings of human history, we (as the American Medical Association's *Drug Abuse, A Guide For the Primary Care Physician*, by Bonnie Baird Wilford, puts it) "have used an almost endless variety of spirits, herbs and potions to relieve . . . feelings of sadness, loneliness, tension and boredom." Not to mention our pain and sleeplessness, or our desire for spiritual oneness with the universe.

Many of the substances whose use has been severely restricted or declared illegal in this century have been around—growing on bushes and trees or popping up out of the ground—forever. Alcohol flows freely throughout the Bible; Noah, for one, rather overdid it. The Greeks raised wine to the level of godliness in the form of Bacchus. And in the *Odyssey*, created sometime before 700 B.C., Homer described an experience that might have come from a shot of Demerol (and probably came from some naturally occurring opiate, such as the poppy, from which Demerol is derived and which still grows in abundance in that part of the world): "Now Helen, daughter of Zeus, turned her thoughts elsewhere. Straightaway, she cast into

the wine of which they drank, a drug which quenches pain and strife and brings forgetfulness to every ill."

Coca leaves (source of cocaine) have been the elixir of choice in South America since prehistoric times. Opium has been used in Mediterranean countries for thousands of years; it made its way to China in the 1800s. These drugs and others came into Western cultures as the world began to be explored. Europeans discovered caffeine in coffee, nicotine in tobacco, opiates, cocaine—Sigmund Freud, in his early days as a neurologist, was moved to ecstasy (personally and professionally) over cocaine's properties. Marijuana was rapidly accepted for medical purposes in 19th-century England after a British doctor in India reported its usefulness for migraine headaches, arthritis, and menstrual cramps. American doctors began to import it from the Near East as a pain killer, for which it was soon routinely dispensed. Opium and its derivatives (such as morphine, heroin, and codeine) also made their way here, often appearing in patent medicines such as "snake oil." Such products caused widespread dependency and addiction; in 1914 Congress passed the Harrison Narcotic Act to restrict the availability of opiates and cocaine to medical practitioners. Physicians who attempted to help addicts by providing maintenance doses were arrested. By 1919 no narcotics were available legitimately in the U.S. A different type of addict—the criminal—was created as addicts turned to illegal sources.

But then as now, American society, founded on the hard-work ethic, demonstrated strongly mixed feelings about recreational drug use. Even alcohol came under the gun during Prohibition, only to be resurrected after its ban caused gang wars, multimillion-dollar bootleg operations, and little compliance.

Officially in the U.S. we condemn individuals or groups who defy dominant drug norms, labeling them "sinners, criminals, social deviants or emotional cripples" (*Drug Abuse, A Guide for the Primary Care Physician*). Marijuana had been used principally by southern blacks, Mexican laborers, and whites with cultural interests such as jazz that brought them in contact with users. In 1925 its use was made a felony in Louisiana; other states quickly followed. The Marijuana Tax Act of 1937 established federal control over the drug, and in 1951 the Boggs Amendment made

penalties for sale or possession of marijuana equivalent to those for narcotics infractions. Until recently even medical use of marijuana was forbidden.

This view toward casual use of drugs and casual users persists—despite the widespread change in attitude toward mind-altering drugs that took place first among the young and spread like a prairie fire throughout the remaining population in the 1960s. (National Institute on Drug Abuse statistics reveal that by 1979 marijuana was third in frequency of use behind alcohol and cigarettes.) In 1950 illicit drug use was confined to heroin and there were some 100,000 users, according to AMA estimates, principally in ghettos. In 1980 there were "tens of millions," says Bonnie Baird Wilford in the AMA guide, from all areas of society and levels of income, all ages, and taking all available drugs. Including prescriptions.

Unlike our attitude toward "recreational use," there is nothing equivocal about America's attitude toward prescription drugs: we welcome them with open arms and open mouths. Drugs are the mainstay of modern medicine, psychiatry included; never before have doctors been able to deal so effectively with what hurts us most and disturbs our functioning. In the realm of pain there is now a drug, Fentanyl, which is 50 to 100 times as effective as morphine. (It has other uses typifying the modern drug dilemma: the late Barney Clark, recipient of the first permanent artificial heart, was anesthetized with it prior to his surgery; under the name of China white it is sold like heroin on the street.) There are whole new classes of drugs which can influence psychosis and soothe the anxiety and depression which mark the worst of its suffering.

Anxiety and depression are, of course, like physical pain, inseparable from being alive and human. Anything which can soften their blow, encourage serenity, provide balance in a world which seems entirely to lack it, we swallow with relief.

America prefers to get its mind drugs from the pharmacy rather than the drug pusher. There are *20,000* potentially abusable psychoactive drug products that fall under federal control (federal drug schedules are explained in chapter 7). More than *20 billion* doses of them are distributed through legitimate channels each year. This does not include substances that are illegally manufactured and sold

on the street, estimated at another several million doses. In 1981 Americans spent $40–$50 per capita on these legal "head drugs."

WHAT IS DRUG ABUSE?

Thus most of America takes drugs—and the confused attitudes about what drug taking is have fostered the climate in which the actual dimensions of the drug-abuse problem have not been recognized. Sadly, a lot of unsuspecting folks who would never dream of "doing drugs," like Georgette Bowen, find themselves wrestling with a drug problem.

Lack of information is perhaps the greatest contributor to drug abuse. Downright myths (ten of which are listed on pages 29–33) shape public and personal behavior. The following chapters reveal the facts of drug use and abuse. The 1960s spawned both a new wave of drug taking and a new generation of scientists to study it. In the ensuing decades they have built a body of knowledge, grounded solidly in theory and experience, out of which it is possible at last to separate the facts from the persistent inaccuracies.

The principal prevailing misconception is that it's the drug you take—not how much you take, under what conditions, or with what other substances—that accounts for drug abuse. In fact all psychoactive substances, from a shot of heroin to that mild sleeping pill your doctor kindly prescribed for you, are capable of producing abuse. And in every case abuse can be avoided—you can have your pills and take them too. But you (and the drug prescribers) must be aware of all the risk factors and which among them are under your control, which not. How all these facts and factors figure into the complex process of drug abuse is detailed in the next two chapters and pill by pill in section II of *The Little Black Pill Book*. First, however, they must be seen in the context of what drug abuse really is.

THE MANY DEFINITIONS OF DRUG ABUSE

The traditional definition of drug abuse given above—nonmedical use—may do more harm than good. Practical and repeated experience tells Marvin the accountant that taking a Quaalude to mellow out at the end of a grueling tax season is not likely to hurt him. He loses respect for the powers-that-be who tell him he's doing something awful to

himself, pays no attention to antidrug messages, and is lured into a false confidence about the "safety" of the drug. Likewise, Georgette Bowen, who is following doctor's orders, has no way of appropriately evaluating or coping with the harm she has come to.

What about some other common definitions of drug abuse? Is drug abuse—

- use of an illegal drug as opposed to a legal one?
- use of any substance to the point of intoxication?
- use of any drug to the point of intoxication that's obnoxious?
- use of a substance in a way or for a reason of which society as a whole does not approve?
- use to the point of addiction?

Most of these definitions are socially, culturally, or legally determined. They have neither stemmed the tide of drug abuse nor helped anyone deal with its realities. Neither have definitions which focus solely on the amount of drug taken. "At the one extreme," states the AMA guide, "excessive intake of any substance is termed drug abuse. Under this rubric would fall the 10-cup-a-day coffee drinker, the two-pack-a-day cigarette smoker, and the four-in-one-gulp aspirin taker. At the other extreme, only chronic ingestion that leads to a state of physical and psychological dependence is termed drug abuse. This definition rejects intermittent use, which accounts for perhaps 75% of all psychoactive drug taking."

THE DEFINITION THAT MAKES MOST SENSE

Here is a more common-sense definition of drug abuse, which is now being used by some addiction researchers and specialists providing assistance to people with drug problems. The advantage of this definition is that you can use it to identify and bring your own drug use behavior under control.

Drug abuse is a single episode or repeated pattern of substance use to the point where it seriously interferes with your health, or your economic or social functioning.

The *consequences* of your drug use, in other words, are what make it abuse.

USE, MISUSE, AND ABUSE

Carl Henderson and his wife, Sally, live in a southern California town. Carl's doctor recently prescribed a benzodiazepine tranquilizer to be used in conjunction with blood pressure therapy. He took his Serax four times a day like a good patient. On the fourth day Carl had a fight with his wife before leaving for work. The more he thought about it during the day, the more upset he got. So before getting in his car to go home, he took another two pills just to calm down. At this point Carl is guilty of drug *misuse*: his doctor had not prescribed the pills for Carl to take at will. As he drove out of the parking lot, he barely realized just how groggy he was. By the time he did it was too late; the car in front of him on the freeway had put on its brakes and Carl cracked right into it. He broke his nose and almost lost an eye. *Abuse?* Yes, because the consequences to Carl's health were serious. That experience was enough to convince Carl not to meddle with the dosage—or if he did, not to drive.

Carl's wife, Sally, however—and this was one of the reasons for their battle that morning—was taking pills to get high. *Drug misuse.* Valium and Miltown (she was getting them from two doctors) plus a couple of drinks—apparently she'd been doing it for months while he was away at work. He began to notice that she was letting the housework and shopping go, letting herself go, always half-asleep, and deeply depressed in the mornings. *Drug abuse.* A few days before his car accident Carl had come home early and found her flat out on the couch with an empty gin bottle, the two containers of pills, and their seven-month-old screaming in a messy diaper in his crib. He demanded that Sally stop. She said she would but she didn't; in fact she got hold of some cocaine, which Carl didn't know about. The morning of his accident he had hollered at her, "I knew you'd turn out this way, a pillhead, a drunk—you're just like your parents." Exactly. Sally Henderson's family history had helped her join the ranks of the "new addict." She couldn't stop taking the drugs: she had become a compulsive drug user.

Meanwhile, the Hendersons' neighbor Harvey was going crazy from their fighting—he was having a hard enough time trying to work without all that racket. Harvey was a

screenwriter. He worked at home. He had been stuck for about a month and a half on a script that was really important to his career. He was able to write, but he felt it just wasn't going right. He'd taken amphetamines when he was in college to get his thesis done. His wife mentioned that she still had about forty Dexedrines left from a prescription a diet doctor had given her years before. Harvey took one and was hot at the typewriter within two hours. *Misuse.* He took one, sometimes two a day and quickly ran out. His wife, Joan, called the doctor and asked for a refill, but he said sorry, he didn't prescribe them anymore. Now Harvey was in a panic—but he couldn't get himself to replenish his supply from the street, or to buy cocaine, for that matter, though a colleague offered to sell him some. Try marijuana, someone else suggested, but Harvey had a thing against that drug too. He sat down and tried to tough it out at the typewriter. To no avail. Now Harvey not only couldn't write badly—he couldn't write at all. *Abuse.*

Drug misuse, abuse, and addiction are not simple events. We are affected by the drugs, by our bodies, by our genetic makeup, and by a series of personal and environmental variables that differ for everyone. These factors contributed as much to the Hendersons' personal problems and to Harvey's writer's block as to their resulting abuse of drugs in order to cope with them. To understand, avoid, and ultimately deal with drug abuse, you must begin to assess your own constellation of variables.

TEN MYTHS OF DRUG ABUSE

1. **MYTH: Most of those who become hooked on drugs have an underlying addictive personality.**

   REALITY: Research has shown that there is no greater incidence of psychological problems among addicts than there is among those who take drugs with less consequence. If anything, there is an addictive *physiology.* Although emotional problems may contribute to why a person seeks or is given drugs, the mechanism of dependency and addiction is predominantly biochemical, resulting from many predictable factors.

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2. **MYTH: Addiction occurs principally among people with weakened, rebellious, or otherwise negative social values. Therefore, most addicts come from ghetto and/or criminal populations.**

   REALITY: Attitudes, values, and treatment by society (as detailed in chapter 3) contribute to setting the stage for drug abuse and addiction. But so do your genes. Research conducted over the last ten years reveals that 10 percent of the entire population—from the ghetto to the country club—is psychobiologically predisposed to drug dependency and addiction. This finding begins to explain why one person will get hooked on a drug and another not, at the same dose. For this 10 percent, drugs are potentially more habit-forming than they are for the rest of the population.

   If you have a family history of alcoholism or drug abuse, you are within this 10 percent segment. If one parent has or ever had a substance problem, even if it was successfully coped with before you were conceived, you are 35 times as likely to develop a dependency and addiction problem with alcohol or drugs once you are exposed to them. If both parents have that history, you are 400 times as likely.

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3. **MYTH: The drugs that are the most habit-forming and cause the worst withdrawal problems are the "street" drugs like heroin, cocaine, marijuana, and PCP.**

   REALITY: All psychoactive substances, prescription pills

included, are capable of producing dependency and withdrawal (defined in detail in chapter 2) if you use them at high doses and/or over a long period of time, or at normal dosages if you are predisposed to these consequences. Some substances have greater dependency potential than others; cocaine has probably the highest. Tranquilizers and sleeping pills, however, have the greatest potential for severe and dangerous withdrawal reactions, greater even than for heroin (withdrawal from which is popularly exaggerated). This category of prescription pill—the sedative-hypnotics—includes those contemporary wonder drugs, the benzodiazepine sleeping pills and tranquilizers (Valium, Librium, Dalmane, Ativan, Serax, Xanax, etc.) which are often taken with as little concern as Alka-Seltzer. Introduced a couple of decades ago, these drugs have been touted as the most effective and safe ever known. Yet within the last few years Valium has been singled out as producing withdrawal when users suddenly stop taking it. Moreover, it has been shown that some people (the same 10-percenters with the family history) get hooked on it at clinically recommended dosages.

4. **MYTH: Valium is the most dangerous tranquilizer.**

   REALITY: While it is true that in the emergency rooms tracked by the Drug Abuse Warning Network (DAWN) of the National Institute on Drug Abuse (NIDA) in more than 25 cities nationwide in 1980, and again in 1981, the number one prescription drug of abuse was diazepam (the chemical name for Valium), all the drugs in the benzodiazepine class have the same potential for trouble. They cause dependency and barbiturate-type, potentially life-threatening withdrawal symptoms. Because Valium has been the most widely prescribed benzodiazepine, and until 1982 was the most frequently prescribed of all drugs, the problems began to be noticed among Valium users and became associated by the public and doctors exclusively with that product. Almost all the tranquilizers and "light" sleeping pills in use today are in the benzodiazepine class. Doctors who switch their patients from Valium to related products,

as many are doing, are only contributing to their patients' dependency problems. (See "cross-tolerance," p. 44.)

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5. **MYTH: Alcohol is less dangerous than the drugs they sell on the street. Otherwise it wouldn't be legal.**

REALITY: Alcohol is a psychoactive drug and despite its legal status is the drug *most* dangerous to body, mind, and public safety. As *Drug Abuse, A Guide for the Primary Care Physician* parenthetically puts it: "The degree of hazard associated with drug use can be assessed in terms of (1) the immediate psychic and physical effects of the drug on the individual and (2) the consequences of continued drug use to society as a whole. (Based on these considerations, alcohol is far more hazardous than any other drug. As Gay and Way observe in *It's So Good, Don't Even Try It Once* [Englewood Cliffs, NJ: Prentice-Hall, 1972], 'in terms of incidence of use, complications from acute overdose, long-term effects on the physical and mental state of an individual, and ultimate consequences for society, there is no close second to alcohol.')"

Because alcohol is legal, we naturally assume it can't be so bad. (Alcohol is safe only in small amounts and never in combination with most drugs.) This misconception in turn leads to the worst of inadvertent consequences. Alcohol is often the factor which makes use of an otherwise safe drug lethal. Alcohol in combination with other drugs caused more injuries and deaths in the DAWN hospitals than any single substance could alone. Valium, for example, is virtually impossible to kill yourself with, one of the reasons doctors are so happy to prescribe it. In the DAWN data, however, Valium accounts for the greatest number of drug-related deaths, and 95.5 percent of the Valium-related deaths were caused by that drug in combination with others, principally alcohol.

6. **MYTH: The reason so many people have prescription drug problems is that doctors prescribe too much medication for pain and anxiety in hospitals and clinical practice.**

   REALITY: If anything, the opposite is true. Evidence suggests that misinformation and misconceptions about dependency and addiction are causing doctors to run scared and undermedicate for fear of causing a drug problem. This practice does a great disservice to patients, particularly those in extreme conditions. Once doctors are able, with the help of the new body of addiction research, to identify which patients are particularly at risk for drug problems, they will be able to prescribe appropriately.

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7. **MYTH: Drug dependency and drug addiction are different terms for the same thing.**

   REALITY: The two are not synonymous. Dependency is the development of a physical or psychological need for a substance, with a physical or psychological reaction to the drug's removal. Addiction is a disease marked by compulsion, loss of control, and continued use despite adverse consequences. Although a person suffering from addictive disease (see page 45) will be dependent on one or more substances, someone who is dependent on, say, cocaine, is not necessarily an addict.

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8. **MYTH: Drug abuse is a young people's problem. It is not common among the elderly.**

   REALITY: Drug abuse is very much a problem for the elderly. Although the over-60 segment of DAWN respondents (1981) used drugs least often to get high, they used drugs more often than any other age group to commit suicide. (Depression is the most frequent psychiatric problem reported in the elderly.) The elderly are also most at risk for severe side effects and toxic consequences of drug use because of changes in their metabolism and deterioration of organs which process and clear these drugs from the system. Pills

remain in their systems much longer, increasing the drug's toxic potential. Also, the elderly cannot tolerate ordinary side effects well. Some psychoactive drugs, for instance, can cause dizziness and loss of balance; a fall by a young person may not be serious, but a fall by an elderly person can have severe, even deadly results.

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9. **MYTH: You can't be addicted to a drug you've never taken.**

   REALITY: Once you have a dependency or addiction problem with a drug, you will automatically have the same potential problem with all other drugs in the same class or which act similarly, whether you have taken them or not. Alcohol, for example, behaves somewhat similarly to tranquilizers and sedatives. An alcoholic who begins to take these pills (frequently upon prescription from a doctor to deal with some of the symptoms of alcoholism) will quickly become addicted to them.

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10. **MYTH: Your doctor will inform you of all the risks involved in taking the medication he or she is prescribing for you.**

    REALITY: Although "it is a medical duty to apprise the public of the facts concerning the extensive usage and the merits and disadvantages of these drugs" (*Introduction to Psychopharmacology*, published for doctors by the Upjohn Company), not all doctors are up on the facts—and not all of them care to share these details with their patients.

    But a doctor's responsibility is only half the story. (Principles of proper prescribance are detailed in chapter 6.) As attitudes toward doctors as unquestioned authorities change, the role of personal responsibility toward one's own health and health care grows proportionately. Ultimately it's your decision whether or not to take a drug. Therefore it's your responsibility to seek information. As they say—it's your body.

2

Psychoactive Drugs and the Body: The Physical Side of Abuse

No two people react to a drug, even to a cigarette, in the same way. No two people taking the same drug arrive at drug abuse following the same route. Indeed, once drug abuse is established, the pattern is never the same for any two people taking the identical substance—Alberta takes her tranquilizers at night with a nip or two of brandy; Michael takes his in the morning with four cups of coffee.

Drug abuse is influenced by an array of physiological, genetic, pharmacological, social, psychological, environmental, economic factors—even acts of God. These variables combine to make each person's experience unique.

Drug abuse begins simply enough (or so it seems): a person and a chemical substance come together at some time and place and begin to interact.

FROM BLOOD TO BRAIN

Taken by mouth, your pill enters the bloodstream by being absorbed into the blood's plasma at any point along the gastrointestinal tract. For most drugs, an empty stomach will promote the most rapid absorption.

Once the drug is absorbed, it must be delivered by the blood to the organ or tissues where its effects are required. On its way toward the target area—the central nervous system (mostly brain but also spine)—the blood is routed first through the liver. As far as the liver is concerned, most drugs are "chemical invaders"—poisons which it must deactivate and expel from the system. Liver enzymes act at once to break down the drugs into inactive substances (metabolites), rendering them harmless and ineffective. But not all the drug is deactivated on the blood's first pass

through the liver (if it were, no drug would have any effect at all). The breakdown process—metabolism—occurs continously as the blood circulates.

Thus the blood delivers the active drug to your brain and the inactive metabolites are delivered by the liver back into the bloodstream. As the blood passes through the kidneys, the inactive materials are drawn out to be eliminated in the urine. The kidneys will also eliminate some of the active drug that has not yet been broken down or distributed to the brain.

The longer an active drug is in the body, the longer its good effects and bad (side) effects will continue. To increase drug effectiveness, pharmacologists have been able to design pills which can "fool" the body into delaying metabolism and excretion. For example, the action of liver enzymes on some benzodiazepines (Valium and Librium included), instead of deactivating them, transforms them into other, *more active* metabolites. This, of course, extends the medication's life span inside your body.

The kidneys, too, can be kept from removing the still active drug from the system. Most psychoactive drugs are chemically designed so that in their active state the kidneys will reabsorb them and return them to the bloodstream rather than letting them pass down into the bladder. Only when the liver has finally deactivated them completely will they be in a chemical state to be readily excreted. How long deactivation and elimination takes depends on the chemistry of the particular drug and a host of physiological and genetic factors in each individual consumer. Pharmacologists measure the active life span of each drug in terms of its *plasma half-life*, the time it takes for the blood plasma concentration of the drug to be reduced by half. Amphetamines have a half-life of 5 hours. However, if a person's urine is more than ordinarily acidic, the excretion of unmetabolized amphetamine still in the blood will be speeded up and the drug will have less effect.

Some drugs (among them phenobarbital and some other barbiturates, plus alcohol, caffeine, and nicotine) after repeated use are capable of causing a much more rapid rate of metabolism. This does not happen in everyone; scientists believe it is in part genetically determined. The half-life of phenobarbital, for example, can vary from 53 to 118 hours. A person in whom the drug is more quickly metabo-

lized has to take more of it to get the benefit of the medication, but taking more also increases the risk of side effects and toxic effects.

Mixing certain psychoactive drugs will sometimes shorten, more frequently lengthen, their half-lives. When the half-life is lengthened, overdose becomes more likely. In the elderly, deterioration of organs involved in metabolism, principally the liver and kidneys, also extends the active life span of drugs such as diazepam. The elderly are much more at risk of accidental overdose from self-medicating or if a physician does not prescribe appropriately.

Drugs with long half-lives and drugs which are not properly cleared may accumulate and be stored in body tissues. Released into the bloodstream, they again become active until they are finally fully metabolized. This is why PCP can cause an unexpected and frequently undesired psychoactive effect long after it is taken.

ALTERING THE BRAIN'S CHEMISTRY

What happens when the drug reaches the brain is becoming known as research brings the biochemistry of the brain into focus. While antibiotics work by attacking organisms which infect the body, thus curing the condition, psychoactive drugs alter the brain's chemistry. They "cure" nothing—they simply block or encourage the receipt or delivery of certain nerve messages, changing, for example, "Ouch!" to "Whew, that's better!" or "Pass the peanut butter!" to "No thanks, I couldn't eat a thing!"

Thus psychoactive drugs offer only symptomatic relief. Once a person afflicted with schizophrenia goes off antipsychotic medication, the terrible symptoms will resume in the same way that consciousness returns when anesthesia wears off, or that anxiety and muscle spasms reappear when the effects of a tranquilizer are gone.

Psychoactive drugs affect the neurotransmitters: brain chemicals which carry the nerve impulses across synapses (gaps) from cell to cell. These neurotransmitters, which include serotonin, dopamine, acetylcholine, epinephrine (adrenaline), norepinephrine, and others which are still being discovered, act essentially to turn on or turn off, or speed up or slow down, basic functions which influence behavior. These include sleep, waking, pain, anxiety,

pleasure, alertness, judgment, mood, emotion, cognition, appetite, motor activity, sexual experience, aggressivity, consciousness, and memory.

Psychoactive drugs either block the receptor sites at the other side of the synapses so that the neurotransmitters can't deliver their nerve impulse messages, or they activate the receptor sites so that the messages will have a greater impact.

Some of the psychoactive drugs seem actually to replace the brain's own neurotransmitters. There is some suggestion that they may all do this; it is known now that the molecules of the opiates (heroin for one) and the benzodiazepines (Valium, etc.) fit so snugly into neurotransmitter receptor sites that they must be pushing some endogenous chemical (one that is produced by the body) out of the way. In 1975 Scottish researchers discovered the first of a previously unknown class of neurotransmitters—called endorphins—which apparently are the body's own natural pain relievers and ecstasy makers. They are present in minute amounts and are astonishingly similar in structure to the opiate drugs.

Natural neurotransmitters similar to tranquilizers have yet to be located. But since the benzodiazepines fit like pieces of a puzzle (or keys in a lock) into specific receptor sites, scientists hypothesize that the body must produce its own tranquilizers. After all, would our genes create molecular receptors and just wait for Valium to be invented?

As we shall see, receptor sites have much to do with dependency and addiction.

DRUG ACTIONS

Psychoactive drugs are generally classed in groups by their principal action or effect on the central nervous system. (These drug groups are described in detail in section II, and it is essential to your understanding of any pill you are taking to know the group to which it belongs.)

Stimulants do just that—hype you up: cocaine, amphetamine, caffeine, nicotine.

Sedative-hypnotics slow you down and/or put you to sleep. They include the benzodiazepines (Valium, etc.) and the barbiturates (Seconal, Tuinal, phenobarbital).

Narcotic analgesics—the opiates, their derivatives, and

related drugs such as Percodan, Codeine, and Demerol—produce a different pattern and quality of sleep from that of sedative-hypnotics and relieve pain.

Antidepressants relieve the symptoms of depression and anxiety. They include Adapin, Elavil, and Tofranil.

Antipsychotics attack the symptoms of major mental illness and help control behavior. They include Thorazine, Haldol, Prolixin, and Mellaril.

More than other pharmaceuticals, psychoactive drugs seem to have a multitude of additional actions. This is because the same substances are often involved in many or all of the central nervous system's complex activities. The central nervous system not only regulates how we feel and respond and what we know, but regulates the body's other systems.

The more influence a drug has over these states and systems, the more dangerous it can be. For example, antidepressants, besides influencing mood, affect the heart and blood pressure, muscle coordination, digestion, blood sugar, sex drive, and still other body functions. Barbiturates (such as Seconal) put you to sleep and also influence your breathing. Besides suppressing appetite and stimulating wakefulness, amphetamines speed up all body systems, circulatory system included.

The more specific the action of a drug, the safer it tends to be, although no psychoactive drug is completely safe. The opiates and the benzodiazepines, which act primarily on particular receptor sites in certain areas of the brain only, have less influence over multiple body systems and are considered relatively safe (when used alone and under controlled conditions). They can produce well defined toxic effects but have a wide therapeutic ratio.

In future, the more scientists discover about exactly which receptors are responsible for what, the more they will be able to design drugs whose molecules are targeted to those sites only. The result will be that you will be able to get the benefit of the medication without having to pay for it in uncomfortable and sometimes dangerous side effects. Another result will be, possibly, that the pills you take to relieve pain will not also get you high.

SIDE EFFECTS AND TOXIC EFFECTS

So far, even the drugs with the most specific action have additional effects. The extra effects and actions of a drug are called its side effects. They result either from the additional pharmacological actions of the drug or from the strength of the dose. Drowsiness, for example, is a common side effect of many psychoactive drugs; so is dry mouth, and so is getting high.

Side effects, detailed for each drug or drug group in section II, range from tiredness to increased or decreased sex drive to rapid heart rate to insomnia—and to feelings of euphoria, peace, joy, fearlessness, competence, happiness—depending on the drug. Obviously, the side effects are often what a drug is taken for, nonmedically speaking.

Toxic or adverse effects are the severest side effects. This is what nobody wants—for the substance to begin to act like poison to mind and body systems.

Side effects (including the high) often disappear if the drug is taken continuously. Through the phenomenon of tolerance, your body works to return to a state of equilibrium in the presence of the drug.

Generally, the degree of side effects, from mild to toxic, is related to the potency of the dose as well as to how long the drug is continuously in your body. This dose relationship is an avenue of abuse in recreational drug use: the higher the dose, the greater the high, the greater the risk of toxic effects. Alcohol causes the worst side effects of all, particularly on the brain and on the organs which have to metabolize it, liver, pancreas, and kidneys. Sometimes the toxic effect of a drug is the opposite of what you take it for: instead of peace, anxiety; instead of a clear mind, confusion, even psychosis; instead of relaxation, convulsions.

Prescription drug dosages are carefully developed and courses of therapy recommended to achieve maximum desired effects and minimum adverse ones. Self-medicating interferes with that—yet another reason why "harmless" prescription drugs become unsafe in nonprofessional hands.

Needless to say, drugs that cannot legally be prescribed, such as heroin and marijuana, have no recommended dosages. And none of the illicit drugs, lookalikes included, are regulated for uniformity, purity, or quality as are the Rx's. The risk of unpredictable overdose on the street is far greater for these reasons.

DEPENDENCY

Dependency is an adverse effect of all psychoactive drugs—even the "mild" ones. Dependency will happen to anybody at a high enough and/or long enough dosage. Some drugs have a greater dependency potential than others (see the table on p. 51). For example, cigarettes have an estimated 80 percent potential: eight out of every ten persons who begin to smoke will develop a habit. For marijuana, also smoked, the rate is only 3 to 6 percent, according to some estimates.

And some people have a higher dependency potential—among them the ten-percenters with the family history, who will develop dependencies at lower dosages.

Dependency is a curious thing. For reasons that remain unclear, after repeated, usually high-dose exposure to these substances, the body develops a need for them—not necessarily for the special effect the drug provides, but rather to feel normal. This spells trouble, for at this point the drug's role in your life has changed from something incidental to something fundamental. To food, clothing, and shelter, add drug. Unless tolerance is present, however, the need for the drug may not be apparent until you try to go off it.

Physical Dependency and Withdrawal

There are two kinds of dependency: physical (also called chemical) and psychological. In physical dependency the substance becomes biochemically necessary for body cells to function normally. The sedative-hypnotics and narcotic-analgesics produce physical dependency. The stimulants are believed to cause a primarily psychological or mixed physical/psychological dependency pattern.

The mechanism of physical dependency may have to do with the neurotransmitters and their receptor sites. One theory suggests that when opiates are introduced into the system, they at first supplement or stimulate the natural neurotransmitter systems (in this case the endorphins); hence the relief of pain or the euphoria. Ultimately, however, this overstimulation or excessive amount of substance causes a shutdown of the natural system. The opiate—say, heroin—now replaces the normal substance.

But when the drug is suddenly removed, the cells cannot function normally until the body becomes able to produce

or use its own biochemicals properly. Until then there is the withdrawal period or abstinence syndrome, with symptoms varying in onset and duration for each drug.

The narcotics user is not the only true addict, nor is narcotics withdrawal the worst of all possible nightmares. The sedative-hypnotic drugs and alcohol have far greater potential for precipitating life-threatening seizures, while withdrawal from heroin is rather like a bad case of the flu.

Withdrawal from a drug, the benzodiazepines in particular, may trigger an intense return of the symptoms (such as anxiety) for which the drug was originally taken. Current research indicates that the benzodiazepines may cause a second, more protracted withdrawal phase following the acute phase in the susceptible ten-percenters.

Only continued use of the substance will prevent the abstinence syndrome or stop it once it has started—which explains in good measure why some of the nicest folks will continue to abuse drugs even in the presence of clear health hazards.

Psychological Dependency and Withdrawal

In psychological dependency the cells have no need for the drug in order to continue to function, but the psyche does. Here, withdrawal is primarily an emotional experience. Cocaine and speed produce powerful psychological dependencies. Stopping, especially abruptly, can cause horrible depression, sense of helplessness, severe exhaustion, and inability to function. This is not a physiological crisis, but it is still a crisis. According to Shana Alexander, in her book *Very Much a Lady: The Untold Story of Jean Harris and Dr. Herman Tarnower*, the private-school headmistress was in withdrawal from a ten-year Desoxyn habit and was "coming unglued" when she shot the Scarsdale Diet doctor in 1980.

In psychological dependency, the psyche becomes reliant on a drug for equilibrium. This is not only a human phenomenon. Monkeys and rats in experimental settings will go for the "reward" that cocaine provides. The more they get of it, the more they want it and the more uncomfortable they become without it; the substance becomes essential to their psychological "steady state." Psychologists use the term "reinforcement" to describe this learning process.

Reinforcement can lead to another function of psychological dependency, "state-dependent learning." Once Harvey, the blocked screenwriter in the previous chapter, became dependent on amphetamine, he could no longer write without it. And poor Tom—listen to what happened to his sex life. He was a perfectly normal 24-year-old guy who discovered that small amounts of amphetamine and cocaine would jazz up his sex life. After a while, sex and stimulants always went together; he started smoking cocaine freebase and injecting speed (and taking tranquilizers to come down). And suddenly poor Tom could get an erection no more. He went off all drugs—which wasn't easy after all that time—but his predrug sexual functioning didn't return. He had learned to associate sex with being stoned—state-dependent learning—and now, in psychotherapy, he had to relearn how to function in a different state.

It's as if Pavlov's dog, having learned to salivate at the sound of a bell, could no longer salivate without it.

Mixed Dependencies

People who have used a drug recreationally to the point of physical dependency are almost always psychologically dependent on it as well. It is relatively simple to detoxify heroin addicts. It is another matter to keep them off the stuff, because, particularly after a long habit, their life-style has become so conditioned to heroin's effects and to other users that they are at sea without their habit.

Cigarettes are an example of a mixed dependency pattern. Nicotine is a minor central nervous system stimulant which is only very mildly physically addicting; physical withdrawal is over in the first couple of days. The rest of the agony is psychological (similar to cocaine withdrawal) and can last for months; some people report sudden cravings years later.

When physical dependency results from medical use, psychological dependency may not be present. It depends on how much the drug has become associated with normal psychological functioning. Hospitalized patients who have become physically dependent on narcotics used to treat painful conditions may not even realize it if the medication is gradually removed before they are released to go home.

TOLERANCE

Tolerance is a state in which the same dosage of a drug no longer achieves the required or desired effect. It is often a symptom of physical or psychological dependency—frequently the first clear sign that it is developing. (It is, however, possible to become dependent on a drug without acquiring tolerance; then, in some cases of physical dependency, withdrawal may be the primary sign.) Here you've been taking your nightly 15 milligrams of, for example, Dalmane for two weeks to get to sleep and now it doesn't work. The natural response—particularly among those who dose themselves—is to take 30 milligrams. But eventually a state of tolerance is reached again; the drug is less effective or you need more.

The only way to stop the buildup of tolerance once it has started is to stop taking the drug (see chapter 4 for tips on stopping, and also check the drug out in section II). Lower doses will again be effective after a period of abstinence (generally related to the level of tolerance that has been built). But again, with repeated use tolerance will begin to build.

Tolerance arises out of the same mechanism which accounts for the disappearance of side effects. The body works, as always, to reestablish equilibrium, by metabolizing the drug faster and getting rid of it before it can have an effect, or by altering receptor sensitivity so that the effect is lessened. Degree or rate of acquired tolerance is probably influenced by genetic factors—as well as by repeated drug use at high dosage.

Tolerance gives birth to the "monkey on your back"—the habit that has to be fed in greater and greater quantities. Narcotics addicts with large habits are not getting more stoned than those with more moderate habits; on the contrary, they require huge amounts to feel normal, and to get just a little high.

Tolerance is associated with most patterns of drug abuse and with all patterns of addiction. And, as its name implies, as tolerance develops your body can accept more of the drug with less actual or apparent ill effect. What gives a long-time narcotics user a so-so buzz would kill a newer user (which is how many heroin deaths occur). But tolerance does not build to all effects; this can lead to false

confidence (always the biggest trap of drug abuse) about a drug's safety among long-time users. Sedative-hypnotic tolerance, for example, builds to the sleep-inducing and calming aspects, but not completely, and not, eventually, to the lethal aspects. Somebody who has been taking barbiturates for years to get to sleep may finally increase the dose one more small fraction—and die.

Tolerance to amphetamines can occur with the high, appetite suppression, and effects on blood pressure and heartbeat; however, the risk of psychosis continues to increase with the dosage.

Virtually complete narcotic-analgesic tolerance occurs to the pain-killing, intoxicating, and calming effects. Research suggests that under laboratory conditions, tolerance to even the lethal effects may be possible. But in practice, when drugs such as heroin, China white, and "loads" are obtained from street sources, the quality and purity are so low or so unpredictable that tolerance does not build sufficiently to protect the user; death is possible from overdose even for long-time users. Also, narcotics high in purity are often responsible for deaths among those who are accustomed to drugs cut with other substances.

In short courses of treatment at recommended clinical dosages, tolerance to medical drugs is unlikely to occur—except among the susceptible ten-percenters. *Tolerance should be a red flag to both doctor and patient.* If the drug is discontinued, further problems with tolerance can be avoided.

Cross-Tolerance

Once you have acquired tolerance to a psychoactive drug, you will have acquired equivalent tolerance to other, related drugs. Cross-tolerance tends to develop among drugs in the same class, which is one reason why drugs of the same class have been grouped together in section II. If your dentist has been prescribing increasing doses of Darvon, say, for the three months you've been enduring root canal work, and he then switches you to codeine, you'll need just as much of it and receive as little effect—because the two drugs are both narcotic-analgesic. It is also pointless to switch patients with Valium problems to another benzodiazepine tranquilizer.

Drugs from different classes are cross-tolerant if they achieve the same effect, regardless of chemical structure. This means that problems like pain, anxiety, and sleeplessness become extremely difficult to treat in the presence of cross-tolerance. Forty-six-year-old Tony G. had been a narcotics addict so long he couldn't remember, he confessed to a nurse at the hospital where he was brought by ambulance after a motorcycle accident. He had broken two vertebrae in his neck and was in severe pain. But he had built such a degree of cross-tolerance to narcotic pain-killers that there was little the doctors could do to ease his suffering.

Those who have built a tolerance to alcohol will be cross-tolerant to all sedative-hypnotics, possibly to certain of the narcotic-analgesics, and to some gas anesthesias, all of which have effects similar to alcohol's on the central nervous system. To achieve an effect from drugs, an alcoholic may have to be exposed to dangerously high doses.

ADDICTION

Addiction is a disease and as such it differs from other drug abuse problems. It too features tolerance to increased dosage and physical and/or psychological dependency, but is also marked by compulsion and loss of control despite the consequences. The addict may have decided to have just one drink or just one "line" of cocaine, but will be compelled to continue, frequently until the supply is finished. The pattern will be repeated time after time, despite the loss of employment, family, friends, health, and self-respect.

An abuser who is not an addict may experience equally strong desire but will be able to control the drug when the consequences begin to get out of hand and the resolve to stop or cut back is made. Linda D., for example, got into a cocaine habit along with most of her affluent young professional friends. Just the thought of cocaine would trigger a craving for it. But because she found herself *always* thinking about it, and always doing it, she began to regret her lack of control, especially when she began to experience severe morning-after depressions. She decided she had better cut down on her use. Linda instituted a once-a-week, three-lines-maximum rule. In spite of this, for the first couple of weeks she snorted three or four days

each, four or five lines. But at least it wasn't every day anymore, and after about a month she was able to level off at once or twice a week. Some weeks she could go without it entirely.

An addict might be able to restrict the days of use (there are plenty of weekend or periodic alcoholics) but not the amount each time. Once the drug triggers the compulsion, attempts to control behavior are useless. For an addict, the only way out is to prevent the compulsion. And the only way to do that is to remain drug-free. *Controlled use may be possible with other patterns of abuse, but never with addiction.*

Addiction is a chronic, relapsing disease which will reappear as soon as the substance is reintroduced—no matter how long the addict has been drug-free. And it is potentially fatal.

The 10 Percent Factor

Anyone can become addicted, but the tendency toward addiction appears to have a strong genetic basis. As mentioned earlier, research conducted throughout the last decade reveals that fully 10 percent of the population has a psychobiological predisposition to drug dependency and addiction. In some people, the disease will become manifest the very first time the triggering substance is used (see the story of Frank Jr. below); in these people, genes are the determining factors. For most of the predisposed population, however, the disease seems to arise out of an interaction of genetic and behavioral/environmental factors. (A small percentage of addicts acquire the disease without demonstrating a predisposition; for them behavioral/environmental factors are sufficient to cause the addiction; see below.)

In these respects, addiction is like diabetes, which may be caused by 1) genetic factors only, accounting for the early-onset type; 2) genetic predisposition plus obesity (a behavioral/environmental factor); or 3) obesity alone.

Within addict recovery groups, it is not uncommon to find as many as ninety percent with a family history of alcohol or drug abuse. Frank and Irene have been members of Alcoholics Anonymous for 25 years. Both come from families with serious drinking problems. They have

one son, Frank Jr., who is also an alcoholic. His disease became manifest when he was fifteen and accepted a vodka and orange juice at a party. Then he asked for another, and another, and another—he had become immediately compulsive—until, long before the party ended, he blacked out. Frank Jr. was an addict. To avoid the course of the disease, his only choice was to stay away from alcohol (and other drugs—see cross-addiction, p. 48) entirely.

The immediate onset of his symptoms and the absence of environmental triggers (explained in the following chapter) indicated to addiction specialists that Frank Jr.'s addiction was probably of the purely genetic type. Others, however, may require repeated exposure to high-addiction-potential drugs to trigger their predisposition.

Drugs with High Addiction Potential

Some drugs have greater potential for compulsive use and thus are more likely to trigger addiction, just as ice cream is more likely than a hunk of liver to trigger a binge in a compulsive eater. They have a quick, powerful onset of action and probably stimulate the receptor sites strongly. (Onset of action is itself an important variable of drug abuse.) They include the narcotic-analgesics, the short-acting barbiturates (such as amobarbital, pentobarbital, and secobarbital), and cocaine.

A man in his mid-twenties who had been taking Dilantin and phenobarbital (the latter a slow-acting barbiturate) for years for a seizure disorder, exhibited an immediate compulsion when Seconal (secobarbital) was prescribed for insomnia related to work-related stress. He was soon taking so many Seconals—five to ten a day—that he cracked up his car and killed two people. It turned out he had a family history of alcoholism; it took the faster-acting barbiturate to trigger his predisposition. After he was detoxified from Seconal, his Dilantin/phenobarbital did not spark the compulsion. (He was acquitted in the legal action brought against him, his lawyer proving that he had suffered an unavoidable drug reaction.)

Unfortunately, predisposed individuals are not necessarily protected from drugs with lower potential, generally those which pack less of a wallop, like tranquilizers. With a family history, you are far more likely to be hypersensitive

to *all* psychoactive substances. Abruptly stopping even small amounts of a drug, tranquilizers included, may precipitate acute withdrawal. With benzodiazepine use you may be uniquely at risk of a second, prolonged withdrawal phase following the acute phase.

Why this hypersensitivity occurs is not fully understood. Addicts and predisposed individuals in general appear to process psychoactive drugs differently, both in the liver and at the neurotransmitter-receptor site level.

Cross-Addiction

Addiction to any psychoactive substance greatly increases the risk of rapid addiction to other drugs, including those with low addiction potential. Cross-addiction, like cross-tolerance, occurs with drugs that act similarly, like sedatives and alcohol. Many alcoholics become "prescription junkies" when their physicians, apparently unaware of the risk of cross-addiction, prescribe tranquilizers or other sedatives to offset alcoholic shakiness and similar symptoms.

Cross-addiction can occur even after prolonged abstinence from the primary drug, and what's worse, the new addiction will reactivate the craving for the old one.

The cross-addiction process may be related to the neurotransmitter receptor sites. Alcohol appears to alter them, perhaps making the sites more sensitive to the "message"; a whisper, so to speak, comes across as a shout, with consequent biological and behavioral overreaction. Once the neurotransmitter-receptor mechanism is damaged, even a "weaker" similar drug will affect the transmission of nerve-cell messages in the same inappropriate way.

Obviously, it is essential that addicts be medicated differently from nonaddicts (see chapter 6).

Addiction with No Family History

Like the diabetic who develops the disease by way of obesity without heredity, some abusers move into addiction purely by way of compulsive, continuous drug use. Anybody will become an addict to some drugs after long enough use at high enough doses. The triggers are emotional and environmental. An estimated 20 percent of GIs in Vietnam became addicted to heroin—a much higher

incidence than in the armed services before or since. Upon their return, over 90 percent were able to give up heroin.

Once it is established, drug addiction, with or without predisposition, follows a similar course of escalating tolerance, decreasing controls, physical and mental anguish, and increased risk of death from overdose, complications, or suicide.

Drug Addiction and Other Compulsions

Some researchers feel that all compulsive behavior, including nonstop videogame playing, food binging, chain smoking, gambling—even compulsive jogging—are different manifestations of one addictive phenomenon. Whether family history plays a part is not known; this is a relatively new line of research that has not produced conclusive data. It has long been known, however, that many drug addicts are compulsive with other substances and activities. Many a heroin addict is pleased as Punch to be off narcotics—while smoking five packs a day and stuffed to the ears with carbohydrates. Others take up jogging during recovery and find they increase their mileage, despite frequent injuries, to achieve the "runner's high." Some even report withdrawal symptoms when they are forced to stop running. (Recent research suggests that prolonged exercise may trigger the endorphins, the endogenous opiatelike neurotransmitters, accounting for the high.) Nondrug alternatives for the management of symptoms such as anxiety are very important for individuals with addictive disease.

COMBINING PSYCHOACTIVE DRUGS

Drug abuse statistics indicate that half of the people who end up in the emergency room and two-thirds of those in the morgue arrive courtesy of a combination of drugs. The overwhelming majority combine their drugs with alcohol.

Alcohol is poison with other psychoactive substances. It is a potentiator—it makes other drugs much more potent in all their effects, including intoxicating and lethal ones. This begins in the liver, where alcohol and sedative drugs compete for the same metabolic enzymes, thus slowing the ordinary deactivation and elimination process and powerfully extending the sedative's effects and life span. Taken along with other drugs which depress, or slow, the system,

alcohol can be the killing factor, triggering respiratory failure. Many accidental sleeping-pill deaths are caused by a reasonable dose of medication plus alcohol, which may remain active in the system from a party earlier that evening.

In alcoholics and others who have a long history of alcohol use in large quantities, a diseased liver may further potentiate the effects of drugs by metabolizing them less efficiently.

Other drugs may also interact with each other and cause problems. In the 1981 DAWN emergency room statistics, the most frequently reported combinations (excluding alcohol) were morphine/cocaine, heroin/cocaine, Quāālude/Valium, Dalmane/Valium, and cocaine/Valium. Quāālude/Valium and Dalmane/Valium are both central nervous system depressant combinations which, like alcohol/ sedatives, will multiply the risk of respiratory failure and coma.

Karen Quinlan remains in a coma in New Jersey after her life supports were removed in a landmark life-support case in 1974. Although the cause of her condition has not been conclusively established, she was reported to have taken a sedative-hypnotic and alcohol that fateful night. Just for fun, her friends said, and not "too much" of either.

Stimulant-depressant combinations like heroin/morphine plus cocaine and cocaine/Valium are often used to get a particular quality of intoxication or to counteract each other's effects or side effects ("downers" to bring a person off the racing effects of "uppers" in order, perhaps, to get some sleep or calm the shakes). Repeatedly combining drugs may promote mixed dependencies, cross-addictions, and severe withdrawal crises, not to mention the multiple effects on the brain and body.

Patients receiving different drugs from different specialists are at risk. If your dentist prescribes codeine for root canal pain, your psychiatrist gives you Placidyl to help break an insomnia cycle, and your orthopedist orders Valium for your bad back, don't just stand there—inform each of them of the other drugs you are taking. Hospitalized patients being seen by many specialists (for example, heart surgeon and cardiologist for a coronary bypass, neurologist and gastroenterologist for postsurgical complications) should make a point of asking the nurses to keep track of all medications and to intervene, if necessary, on their behalf.

DRUG ABUSE RISKS BY DRUG CLASS

	Primary Nature of Dependency	Dependency Potential	Risk of Organ Damage and/or Death	Risk of Severe Social/ Economic Consequences	Risk of Severe and/or Long-Lasting Mental/ Behavioral Change
Stimulants	psychological	high	moderate	moderate to high	moderate to high
Barbiturates	physical	moderate to high	moderate to high	moderate to high	low
Benzodiazepines	physical	low	low	low	low
Narcotic analgesics	physical	high	low	high	low to moderate
Alcohol	physical	moderate	high	high	high
Cannabinoids (Marijuana)	psychological	low to moderate	low	low to moderate	low
Cigarettes	physical/ psychological	high	high	low	low
Mixed drug classes	physical/ psychological	high	high	high	high

A hospital can turn out to be a dangerous place for those of you who are susceptible ten-percenters—the place where you are introduced to the high-potential drug to which you will become addicted. Doctors are more likely to prescribe more powerful drugs in a hospital, because the patient can be watched there. A week's worth of morphine or Seconal may trigger your predisposition.

3

Drugs and Your Lifestyle: The Psychological Side of Abuse

You are a feeling, thinking, acting human being. You are exposed to a drug within a given environment:

- the circumstances of your life;
- your past and your foreseeable future;
- the pressures you are under;
- how you respond to stress;
- who your friends are;
- what your job is;
- how much money you have;
- where or when you take your drugs;
- your family life;
- your state of mind;
- the state of the economy;
- your health.

These have as much to do with your choosing a drug and becoming a user, abuser, or addict as your genes and how the drug acts inside your body. Even for a drug addict with a strong psychobiological predisposition, some outside factor must trigger it. The drug itself is the first outside factor—it comes from the environment. How does it happen that you take the drug? The following case history illustrates all too well how the environment can provide the determining factors.

Marianne is an addict. You'd never know it to look at her. She's a lawyer and holds a prestigious government job in a large northeastern city. She's 27 and comes from an upper-class New England family—prep schools and Ivy League all the way. Marianne's mother drank large amounts of alcohol daily at the social events which were her princi-

pal occupation. Like many children of problem drinkers, Marianne rarely drank. Her mother's drinking and often abusive behavior disgusted her. Throughout her schooling, Marianne wasn't exposed to alcohol much, since she was as intent on her studies as her mother was on socializing. Her city government job exposed her to many political events and business lunches where she was known as a teetotaler.

During a tennis game one day, Marianne twisted around suddenly. Sharp, insistent pain began the next day. She saw a doctor who prescribed Valium for muscle spasm and first Tylenol with codeine, then SK-65 (a generic Darvon preparation), and ultimately Percodan, for the pain. But the pain did not substantially subside and the doctor advised that Marianne stay in bed. At home she began taking steadily increasing doses of Percodan, along with the Tylenol/codeine and the SK-65 that remained from the initial prescriptions, plus the Valium. Mostly she watched TV and drifted. When Marianne phoned her doctor for more Percodan and Valium, the doctor obliged, even though both prescriptions should have lasted longer.

Marianne was able to go back to her job when the time came, but continued to be in pain—that, or she wanted to keep taking the pills, even she wasn't sure anymore. When her doctor at last became reluctant to prescribe, Marianne stole several sheets off the prescription pad and wrote her own prescriptions, forging the doctor's signature. It could have meant the end of her career, even jail, had Marianne been found out. She wasn't—but her City Hall colleagues had started to whisper about her "drunkenness," assuming she must be a closet alcoholic. What other explanation could there be for her dull-witted, uncoordinated, glassy-eyed demeanor? And it was no secret that she wasn't doing her work. She began to call in sick one, sometimes two days a week.

Finally, her commissioner called her in and asked if she would like to take a leave of absence. Without having to explain, Marianne accepted with relief. She wanted out of this horrible thing. She was so ashamed that she wouldn't even seek help in her own city; she flew all the way to the West Coast for treatment.

Marianne's story illustrates several personal and environmental variables, among them availability, source, attitude,

setting, and health. The drugs that sparked Marianne's addiction were not available in her normal environment. They become *available*, however, when she was injured (*health*), through her doctor (the *source*). Marianne would have refused alcohol under any circumstances, but her *attitude* toward prescription drugs was open and accepting. Perhaps the crucial variable for Marianne was the *setting*. Had she been at work rather than lying in bed bored with all those pills around, she probably would have exercised her usual rather rigid controls. She might have been able to fight the taste for the drugs that she was rapidly developing and to head off the compulsion which, once in motion, nearly led her to self-destruct.

ATTITUDES

Attitudes—personal and those of society at large—strongly influence the choice of substances and shape the abuse pattern. The dominant attitude in America today is that no self-respecting person would try heroin—which keeps many a self-respecting person away from it, despite a curiosity about what the drug might be like. Those who develop a heroin habit, however, must contend with society's attitudes toward them and live, if the habit is known, as deviants.

And attitudes toward legal substances as one thing, illegal substances as another, have led to the virtual epidemic of prescription drug abuse we are contending with today.

Attitudes make it easiest to choose alcohol. Even the overt drunk is often accepted and tenderly tolerated, as witness the frequency of comic sketches about lovable drunks on TV or in the movies.

AVAILABILITY, PREFERENCE, AND PRICE

Alcohol, cigarettes, prescription drugs, and marijuana are the principal drugs of abuse today because they are available almost everywhere.

A 67-year-old grandfather was astonished to discover how simple it was to obtain marijuana. He was receiving chemotherapy following removal of a cancerous lung. Oncologists at the teaching hospital where he was being treated recommended that he smoke or eat marijuana before each treatment to quell the disabling and discouraging nausea.

But they said they could not prescribe it for him, since even medical use of marijuana was forbidden in that state. The man called his son, a marijuana smoker, in the Midwest and asked uneasily if he could bring a supply when he came to visit in a few weeks. The son said he would, but suggested that in the meantime it would be easy enough for his father to obtain some on his own. "Me? How? I don't know any dope pushers," said the father. The son laughed and suggested that he ask any of his friends who had children living nearby if they could get some for him. After some hesitation, the father did as his son suggested. He "scored" on his first call. The daughter and son-in-law of his next-door neighbor were at his house within the hour with a gift of marijuana.

The availability of narcotics to doctors and nurses, combined with the high stress of their occupations, has resulted in a serious incidence of drug abuse within the medical profession. According to a study by S. E. D. Shortt, reported in 1979 in the *Canadian Medical Association Journal*, physicians misuse drugs twice as much as others on the same social level. Physicians who are "impaired" by drugs may go on to make dangerous drugs inappropriately available to patients.

But not all doctors or nurses who are tempted to shoot up with Demerol like its effects. Not all the kids who experiment with heroin like what it does to them; most don't. Preference, therefore, is a key factor influencing which drug or drugs become a habit.

And not all those exposed to Quaalude, for one, can afford or are willing to pay the going street rate (about $20 per pill). Alcohol is cheaper.

SOURCE

Harvey, the screenwriter with writer's block mentioned in chapter 1, had no strictures against taking his wife's diet pills to help him work, but he wouldn't purchase them from an illegal source, even though a fresh supply would have helped him complete the screenplay. For him, therefore, source was the key variable in his abuse pattern.

Similarly, many people who go from doctor to doctor to get pills wouldn't think of approaching a less legitimate source—even though some doctors who dispense prescrip-

tions with relative ease are "script doctors," dispensing prescriptions for money, which is illegal. Getting their drugs from doctors helps these users rationalize their drug habits.

If the doctor is prescribing for a legitimate condition (anxiety or sleeplessness), the source may account for unwitting abuse.

OCCUPATION

What you do for a living determines the nature of your on-the-job pressures and may strongly influence which drug or drugs are introduced into your environment.

Many psychoactive drugs, perhaps all of them, can help break through the inhibitions suffered by many creative artists. For performing artists, drugs (among them Inderal, prescribed for high blood pressure) can ease the fear of having to go out there and do it. Entertainers such as rock groups often share their drugs prior to performances, or at least provide an environment in which drug use and abuse are readily understood and accepted.

In certain professional sports, notably football and basketball, drug taking is often an unofficial part of the job. One former professional football team physician, Arnold Mandell, says that before 1972 National Football League team physicians could write blanket presciptions for bulk purchases of amphetamines. NFL policy, however, prevented this practice after 1972. High doses were used mostly by linemen to promote aggressiveness and analgesia (painlessness) without the sedative effect of narcotics. Dr. Mandell reports the case of a defensive lineman who was suffering from intermittent impotence and marital problems—his wife was sure he was being unfaithful. When Dr. Mandell traced the impotence to his amphetamine use, the player was eager to cut down on the pills. "But this affected his playing and led to his being benched," reported Mandell.

While illicit use of stimulants—cocaine—is now the greater "scandal" in the football (and baseball and basketball) world, narcotic pain medication is routinely and legally dispensed for players' all-in-a-day's-work injuries.

In any occupation where drug taking is seen as part of the job, there is a higher probability that addiction will be triggered in anyone with a predisposition.

GROUP PRESSURE

Some authorities feel that peer pressure is the prime variable for many abusers. Use of a drug is often a means of ritual acceptance. Children, who are particularly vulnerable to peer pressure, often force themselves to continue a drug whose effects are unpleasant at first—whether cigarettes, alcohol, hallucinogens, or heroin.

Group pressure is hardly restricted to children, of course. An East Coast bridge and tunnel worker reports that her first day on the job in an apprentice position, she found that all her coworkers as well as their supervisor (all men) stopped work frequently to smoke marijuana. While she was no stranger to marijuana, she did not care to be stoned while working. But when the joint was passed to her she took it, because she felt the dangers of being excluded were worse. Despite repeated requests, she was not able to transfer to another tunnel for nine months. Now, though she no longer smokes on the job, her at-home use is much higher than it was before.

The group can determine attitudes, drug availability, and therefore consequences. In the entertainment and TV news industry, for example, cocaine use is open, accepted, and ritualized. It is also expensive, and the financial consequences to someone who develops a habit and can't afford it can be devastating.

Group pressure may be the determining factor in return to drug abuse and addiction. Drug users generally hang out with people who also use; the group as a whole often feels threatened when one of its members attempts to quit. Bill P. told his friends he was not going to take a drink that night. But at the party they went to Bill was so frequently offered a drink by these same friends—"Come on, Bill, *one* can't hurt you"—that he gave up and gave in. He couldn't stop at just one, and once more he ended up drunk.

The only choice for many people who want to give up drugs is to give up their friends too, which is too big a sacrifice for most people to endure. This is one reason why support and identification groups, described in the following chapter, are often the best places for abusers to turn for help.

SETTING

It seems a small point, but the setting—the place where you take the drug or where you are while intoxicated—can spell the difference between use and disastrous abuse. Death on the highways is all too frequently caused by this factor—driving a car while intoxicated. Likewise, a sleeping pill taken at bedtime is appropriate use, but a sleeping pill taken before operating a chainsaw will surely lead to abuse. We saw that lawyer Marianne, who gobbled her drugs while home from work and bored, might have avoided addiction in any other setting.

STRESS

Drug taking is more attractive when the environment is stressful and restricted: in times of economic difficulty, when segments of the society are dislocated and isolated, or where the miseries of daily life are high.

Mrs. S. was 59 when she began to suspect her husband was seeing a much younger woman. Mrs. S. had raised three children, all now away from home. Wife and mother had been her role in life. She had never worked; years before, her husband had talked her out of it. She had no money of her own and had never lived alone.

Mrs. S. was afraid to confront her husband, afraid to confront the truth. She let him get away with his ridiculous excuses—he said he'd joined a bowling league, he who'd never bowled in his life. When she developed problems staying asleep, her doctor prescribed Restoril. She began to mix herself a cocktail or two around nightfall, the time when ordinarily she would be fixing her husband's dinner. Mrs. S. discovered that Restoril and a martini substantially alleviated her extreme anxiety and feelings of impending doom. Her husband commented that she seemed in a better mood. But the Restoril no longer worked to keep her asleep. The doctor switched her to Seconal, a two-week supply with one refill, cautioning her not to mix it with alcohol. For a while she didn't mix them, or so she thought. She was taking the powerful Seconal at night at twice the prescribed dosage, and beginning to drink earlier in the day, still drifting from the medication. Her husband called her behavior disgusting; that night he didn't come home at all. Mrs. S. drank late into the night. When she decided

to drag herself from the couch into the bedroom and go to sleep, she reached for her Seconals—or had she taken them already? Mrs. S. was too loaded to remember. She took more. Her daughter found her in the morning in a coma. Emergency measures saved her. Her husband left her and moved in with his stewardess friend. Mrs. S. is living temporarily with her daughter.

FAMILY AND SUPPORT SYSTEMS

The nature of a person's support system in times of trouble can be the most significant drug abuse variable. Major trauma—a death, breakup, rape, job loss, accident—frequently precedes the onset of drug abuse. Where drugs may have been used to cure symptoms or for a measure of enjoyment, following the trauma they become an outlet or an avenue of escape if there appears to be nowhere else to turn. Mrs. S., who had never abused anything except maybe coffee, could hardly turn to her husband in her distress, and she had not yet developed a support system among her children.

Traditionally, the family has been the primary support system. Family disintegration or difficulties are a major deciding factor in drug abuse. Parents whose children have lost control with drugs may slip into a drug problem themselves—often with the tranquilizers they turn to for their anxiety. Isolation and rejection from the family are among the many problems of the aging, who are anything but immune to drug abuse. Emergency room DAWN data show that it is people over 60 who abuse drugs the most—in order to kill themselves. (The 10–17 age group is right behind them).

Lack of family support systems for children can contribute to their use of drugs in later life, particularly children who are physically, psychologically, or sexually abused.

EMOTIONAL AND PSYCHOLOGICAL FACTORS

An "addictive personality" has long been considered sufficient to explain why someone develops a drug abuse problem. Such a personality has never been found to exist, however. Studies comparing addicts to nonaddicted drug users have never revealed any significant difference in types of psychological problems or personality traits.

Some researchers and drug treatment counselors believe that underlying depression is the psychological factor that contributes most significantly to the choice and continued use of drugs at a given time; psychoactive drugs do alter mood, and thus the state of mind of the user is an important variable. Other psychological variables are degree of stress and reaction to trauma, tendencies toward compulsive or impulsive behavior, low self-esteem (this, say some, is especially significant among children), tolerance for deviance, low frustration tolerance, and suppressed rage. A small percentage of individuals that develop multiple or polydrug problems may have major physiological problems such as a manic-depressive disorder that they are self-medicating with multiple drugs of abuse.

HEALTH

Your state of mental and physical health dictates which prescription substances you are likely to have around and how well you can tolerate their effects. Most prescription drug abuse starts with a legitimate prescription for *something*.

It's hard to say which ruined Fred's life—his back condition or the drug addiction that developed soon after the operation to correct his slipped disk 25 years ago. He took narcotics for the pain, the dosage promptly escalated, and Fred was hooked. Doctors were willing to prescribe whatever analgesic he requested through the years. He took so many pain killers containing phenacetin that he went into kidney failure. The dialysis treatments he had to endure so upset him that doctors began to prescribe the antipsychotic Thorazine. Fred isn't yet 60, but he hasn't held a job in years. He hasn't been a husband to his wife or a father to his children. And of course, it's impossible by now to treat his pain. Nobody treated it in the first place. They just fed his habit.

PATTERNS OF ABUSE

With health factors we return full circle to the pill and the body.The drug, the body, the person, the environment, all the factors conspire to start the process of drug abuse, and all combine to keep it going or to help establish control over it. If it continues, a pattern of abuse emerges that is

shaped more and more by the drug or drugs taken. As shown in the table on page 51, and discussed in the previous chapter, each of the major drug groups has its pattern—no two are alike—with its risks and demands and unavoidable realities. Someone with a sedative habit is going to have to adjust his or her job performance to a lower level of alertness. (But will the employer accommodate such an adjustment?) With a firmly fixed narcotics habit, lying and dissembling loom large because of the general disapproval with which these drugs are viewed. Cocaine users may have to exercise extraordinary control to avoid the insistent attraction of this drug. Physical deterioration and unavoidable withdrawal will shape the alcoholic's existence as the years go by.

Thus life begins to accommodate itself to the substance, and not the other way around.

4

How to Know if You Have a Drug Problem

Do you have a problem with drugs? Is your drug abuse a single episode or a repeated pattern that seriously interferes with your health or your economic or social functioning? If you take drugs for whatever reason and difficulties are beginning to crop up, you probably do have a drug problem, even if the connection is not yet apparent or you just don't want to see it.

SYMPTOM NUMBER ONE: DEFENSIVENESS AND DENIAL

Ironically, the more developed and deeply ingrained the pattern of drug use, the harder it may be to see a serious potential problem for what it is. Denial runs rampant among drug abusers. Perhaps it is a function of reinforcement: the more we use drugs, the more we want them, and the less willing we are even to entertain the notion of giving them up. The most effective way to avoid that possibility is to keep insisting: "I don't have a drug problem."

Ethan L. used street speed or prescription amphetamines that he got from a "diet doctor," plus sometimes Librium or Placidyl to bring him down. He was a florist, serving a chic upper-income clientele, and ever since he and the drugs had "discovered each other," as he liked to say, he felt that his business had improved. He had more energy, and he felt that his flower arrangements were more original.

Ethan had always had a large circle of friends, most of them unaccustomed to serious drug use. Many were alarmed by Ethan's increasing drug dependency and changing behavior, not to mention the obvious drain on his income. They began to notice too that Ethan's drinking was on the increase. Ethan would be quick to his own

defense: cocaine was a far more expensive habit, he'd tell them, and anyway he had his habit well under control. And no, he didn't know what they were talking about, he hardly drank a thing. One by one his friends departed from Ethan's life, tired of the endless denials, and fed up with his increasingly erratic moods and frenzied behavior. To new friends, Ethan would say that he'd give up the pills as soon as he felt that his business was really established. His old friends, he told them, were all out to get him.

Jerry, Ethan's one remaining old friend, tried to reason with him that he'd been in the flower business now for 3½ years—and that his habit was eating up the profits. And loyal Jerry dared to confess that it was becoming harder and harder to deal with Ethan's ups and downs, his nastiness, his paranoia, his intoxicated self-involvement.

Ethan pooh-poohed Jerry's little speech. He had his pill thing under control, he repeated. He could see that Jerry was out to get him too. And if Jerry was such a puritan about taking a couple of pills in this day and age, he could just take off. Which Jerry did.

Only when Ethan began to have difficulty performing sexually did his denial at last begin to crumble. He was forced to take an honest look at his drug taking and was devastated by what everybody else had tried to warn him about all along. And now, typically, he had nobody to turn to.

OTHER SIGNS, SYMPTOMS, AND SIGNALS

Besides defensiveness and denial, clear signs of difficulty with drugs are:

1. The feeling that the drug you are taking is essential to your normal functioning;
2. Needing increased amounts of it;
3. Experiencing a craving for it;
4. The presence of substance abuse in your or your family's history.

The first three signs point toward dependency, possibly addiction. Adding one or more of these to the fourth, the personal or family history, fairly clinches it: you have a drug problem.

Any change in health, mental functioning, or behavior

especially if it is sudden, can signal toxicity from drugs. Drug treatment specialists look for any of the signs or symptoms on the following lists, though most of them can have other causes. They are indications that something is wrong:

Physical and Mental

- increased or decreased tolerance for alcohol or drugs
- red face, red nose
- bumps and bruises (from falling or bumping into things)
- puffiness of face or extremities (edema)
- sudden vision difficulties
- swollen nasal membranes
- chest and heart problems, including bronchitis, changed heart rhythms, heart failure
- enlarged liver
- frequent infections of any kind, especially pancreatitis
- digestive problems, including diarrhea, cramping, nausea, vomiting blood
- lingering colds and flu-type symptoms
- high blood pressure
- signs of bad nutrition
- tremors
- blackouts
- changes in reflexes
- loss of coordination
- dizziness
- confusion and slow comprehension
- slurred speech
- memory losses
- anxiety or depression
- delirium
- hallucinations
- insomnia or other sleep disturbance
- impotence or inability to achieve orgasm
- craving for sweets or total avoidance of them
- loss of appetite

Behavioral and Social

- increased reliance on drugs
- family problems
- financial difficulties

- frequent change of jobs or loss of employment; lateness or absenteeism
- car accidents
- increased legal problems (resulting from illegal or antisocial behavior)
- suicidal behavior
- violent behavior
- suspiciousness
- unusually passive behavior
- increase in severity of usual neurotic symptoms

TAKING INVENTORY

The indications can be a great deal more subtle than those listed: maybe an otherwise unexplained pervasive tiredness—or sweating too much—or a vague loss of interest in your lover or spouse.

Take an inventory of your drug use/abuse pattern (see the personal drug-use inventory, pp. 68–69) and see how extensively it intrudes into your life. Particularly with a longstanding pattern the effects are likely to be spotted all over your life.

Alice J. had been taking the same drugs, most of them moderately, for years. Her pattern was common—so common that she was hard-pressed, before taking inventory, to see it as a pattern. At 32 she was well launched on a fast-track career as a network newswriter in New York. Once in a while she'd take Librium, which her psychiatrist prescribed at her request. She'd take 5 to 10 milligrams, a small amount, for a few days when the anxiety—usually something to do with work—was at its worst. The stress would subside, and Alice would go for weeks, occasionally months, without requiring a tranquilizer. And rarely, maybe every few months, Alice would take Dalmane or chloral hydrate to break a sleepless spell. And assorted pain killers—codeine worked best—for those miserable headaches that would attack out of nowhere once or twice a year.

She wasn't much of a drinker, maybe a glass or two of wine with dinner when she was out with her boyfriend Ben or with friends. Besides the four or five cups of coffee she drank during the course of the day, the only drug habit Alice felt she had was her marijuana, of which Alice had at least a puff or two practically every night. She found it

helped her relax and let go of the tension of the newsroom. And it was nice, very nice, for sex.

At first the only consequence of her drug-use pattern that Alice could identify was the heavy tiredness she felt late evenings and early mornings. Mornings, in fact, were awful for her. She would wake up feeling as if she had had two hours of sleep, and her face would often be unpleasantly puffy, especially around the eyes. She was having difficulty controlling her weight, since as soon as she'd light up the "munchies" would be upon her. Then there were the sudden attacks of coldness and shivering, which could make bad winters almost unendurable. And if she mixed her medications or marijuana with alcohol—tranquilizer morning and afternoon, wine with dinner, marijuana before bed—the drugged feeling would linger uninvited through the next day. That would spell real trouble, because in that condition Alice couldn't think straight, which would make her fast-paced work especially stressful for her. So she'd come home and smoke a "joint" to relax, which would only make matters worse. Those days she and Ben would almost always have a fight.

Most of the time Alice did a fairly good job of keeping her drug taking under control. Her inventory did reveal a larger marijuana habit than she thought she had—she hadn't been aware that she never went a day without it—but it also allowed her to make sure she didn't go beyond already established levels.

All told, Alice's tracing of her drug-use pattern revealed effects throughout her life, but few compared to what they could have been if she had less control over her behavior.

An inventory taken three months later revealed a very different pattern. Her boyfriend Ben had left. She wasn't expecting it and it knocked out her control. First she needed her Librium, more and more of it, to calm down. Then she couldn't sleep; in came the Dalmane and then chloral hydrate, by prescription. The marijuana was lit earlier and earlier; once she smoked a joint in the ladies' room at work. Wine came with lunch and dinner, and Alice felt bad everywhere she turned. She was logy and stoned and confused and began to take days off from work. At home, she'd get stoned and watch soap operas and refuse to think about anything. But the thoughts crept in—some at the insistence of her therapist. She did a drug inventory

Personal Drug-Use Inventory

This list of questions can help you decide whether you are misusing prescription pills or have the potential for misusing them. There are no "good" or "bad" answers to many of them—only honest answers. But if you find yourself silently answering "yes" to more than a few, it may be time to start thinking about ways to reduce your use of drugs.

Are Drugs Affecting You Financially?

- Has spending money on drugs kept you from buying necessities, such as food or clothing, or from paying the rent or mortgage?
- Do you worry about how you'll pay for the pills you use?
- Have you ever borrowed money to buy drugs?

Are Drugs Affecting Your Work?

- Have you ever missed a day's work because of using drugs?
- Have you ever used drugs for "fun" or to "help get through the day" while at work?
- Do your co-workers use drugs and try to get you to join them?
- Have you been worried lately about losing your job because of your use of drugs?

Do Drugs Get You into Trouble?

- Have you ever driven a car while you've been under the influence of drugs and/or alcohol?
- Have you ever had an accident or been given a ticket while you were using drugs and/or alcohol?
- Have you lost a friend or friends because of your use of prescription drugs?
- Do you lie about your drug use? even to your close friends?
- Do you sometimes argue with people about the way you use drugs?

Do You Use Drugs for Nonmedical Reasons?

- Do you take pills to improve your mood?
- Do you use drugs to improve your sexual performance?
- Do you take drugs to help you forget your problems?
- Do you sometimes take a pill before breakfast, perhaps to get the day off to a "good" start?

Do You Miss Drugs When You Stop Using Them?

- When you don't use drugs for a few days, do you feel depressed?
- Do you feel "left out" when you're not using drugs?
- Do you sometimes feel sick—a headache, upset stomach, etc.—when you stop taking pills for a few days or a couple of weeks?

Does Your Use of Drugs Bother You at Times?

- Have you lost interest in sex—even a little—since you've been using drugs?
- Have you ever stopped taking pills, even temporarily, because of an unpleasant physical or mental feeling?
- Have you ever felt sick while taking drugs but kept on taking them anyway?
- Have you ever tried to cut down your drug use?
- Do you sometimes worry that your drug use is out of control?
- Have you ever wondered whether you're addicted to drugs?
- Do you ever feel guilty about taking drugs?
- Do you have trouble waking up or feel like you have a hangover the morning after you use drugs?
- Do you suspect that your use of drugs has increased over the past few months?
- Do you think about drugs at least once a day? more often than that?

Are Drugs Affecting the Way You Think?

- Have you sometimes thought about suicide since you've been using drugs?
- Do you sometimes accept a pill without even asking what it is when a friend offers it to you?
- Are you sometimes unable to remember what happened after you've used drugs?
- Do you have trouble concentrating when you've taken pills?

and got the picture of what she was doing and what it was doing to her. Her self-disgust was enough to shock her controls back into operation.

EVALUATING THE PATTERN AND DECIDING WHAT TO DO

If your pattern leads you to think that you are dependent on drugs, or if it reveals serious consequences in any life area, you have basically two choices:

1. Reestablish control or institute new rules and return to safe use.
2. Stop taking the drug or drugs altogether—a sure test of how dependent or addicted you are. (And if you can't even consider stopping, even for a week or two, that's another sure indication of the extent of the drug's hold over you.)

Addicts and predisposed individuals will have no choice; they will have to go off and stay off in order to avoid further problems. This is best accomplished by entering into a recovery program and living a comfortable life without psychoactive drugs.

STOPPING

The safest way to go off any drug is to taper off slowly so that body and mind will be able to resume natural functioning once the drug has cleared the system. Tapering takes control, however, and with the more reinforcing drugs—like amphetamines or cocaine—it takes an iron constitution to make do with less and less each time. It is easier to stop and avoid further exposure. But with drugs that produce physical dependency, particularly the sedatives (including the benzodiazepine tranquilizers), abruptly stopping—"cold turkey"—may not be safe. It can trigger a severe abstinence (withdrawal) syndrome. To prevent this, seek medical supervision at a hospital or private detoxification program under the guidance of your doctor (see chapter 5).

If you take yourself off drugs, suddenly or gradually, and symptoms of withdrawal begin, take the drug once more and the syndrome will cease. Then seek supervision.

Drugs which promote primarily psychological reliance are safely stopped cold turkey. Be prepared to endure a

few days or weeks of feeling depressed or sleepless or angry. This will subside. But you still may wish to be under supervision; if so, see chapter 5.

CONTROLLING DRUG USE

It is possible to change a drug use or abuse pattern that has not developed into compulsive use or addiction by changing or manipulating any of the variables mentioned in the first two chapters. Any change will alter the pattern in some way.

Identify the most significant factors (using the self-monitoring questionnaire) and work with them first. Since drug dependency and toxicity are always (except for the susceptible ten-percenters) dose- and frequency-related, many of the problems will diminish or disappear, temptation included, when the dose is cut or when the doctor's instructions are more closely followed. One woman discovered to her surprise that when she smoked unusually potent marijuana she would experience a powerful craving for other drugs as well. But when she smoked a weaker strain of marijuana, she had no further problems.

Tolerance can be manipulated by taking "therapeutic breaks" every now and then. No matter which drug is being taken, or who's prescribing it, psychoactive pill taking should be stopped (tapered off slowly) for at least a few weeks every two to three months, depending on the medication, to let the accumulated effects of tolerance and dependency subside.

State-dependent learning can be similarly skirted by alternating the pattern of use so that an activity and the drug are never consistently paired. With those drugs that enhance sexual performance or experience, keep in practice without the drug too. Artists and performers, whose horns blow so sweetly with just a couple of pills, should make sure often to naturally wet their whistles to avoid the state-dependence trap.

Some of the worst toxic effects of drug use can be eliminated by altering the mixture of drugs. Sometimes just doing without alcohol is enough. Or keep the alcohol and eliminate the drugs.

Controlling drug use almost always means grappling with temptation. *Availability* is often the key factor. If the

drug is right there you'll take it; but would you walk a mile for it? If you don't carry your pills with you, you won't have them around all the time to take.

Changing the *setting* may work. It did for John R., who kept getting in car accidents when he was stoned on Percodan, a potent pain killer, prescribed for a back injury years back when he played professional football. Actually, the state changed the setting for John by removing his driver's license. After six months of no wheels, John learned it was possible to get around by bus and taxi. When his license was reinstated, he was able to stay out of harm's way by driving less. It was either that or go off the drug, and that much John still wasn't prepared to do.

In times of *stress*, instead of increasing your drug use, be vigilant about using other, natural stress reduction techniques (see "Appropriate Use of Psychoactive Drugs," p. 77).

Or the critical variables may be *social*. Groups of friends or relationships identified with drug taking may have to be left behind. Margaret S. left her boyfriend—she knew that was the only way she was ever going to lighten her narcotics load. He wanted her to shoot up and do pills with him, didn't want her to stop, became abusive when she brought the subject up. She once even prostituted herself with his blessing when they couldn't come up with enough money for drugs. Leaving him was rough, but once she did she found she had far less of a problem getting off drugs than she had ever imagined. She did seek help at a free clinic, joined a rap group of other users, and buttressed her support system.

CONTROLLING DRUG HUNGER

As those who diet know, hunger is very difficult to manipulate or control, and the more you indulge yourself in food, the harder it is to feel satiated with less. The same is true with drugs. Whether for food or for drugs, hunger is psychobiological—no doubt influenced by neurotransmitters, although the mechanisms are not clear.

Drug hunger and compulsive use go hand in hand: hunger is the urge and compulsive use the behavior that develops to satisfy it. Eventually, uncontrolled feeding of drug hunger will lead to all the worst consequences of drug

abuse, including addiction. Drug hunger is a sign and a result of addictive disease.

The only guaranteed way to deal with drug hunger is to keep it from arising. Never count on your ability to wrestle with a drug craving each time it happens. Repeated self-monitoring of dosage, frequency, and effects can help you head off the problem at the pass. By keeping track of the changes in your pattern of drug taking, it serves a purpose similar to that of a scale for a potential food abuser.

DRUGS IN THE FAMILY

Through lost jobs, changes in expression of affection, aggression, and emotion, the whole family suffers the consequences of a member's drug abuse. The family may also be the primary "variable" out of which drug abuse springs. Patterns of drug abuse are passed from generation to generation, via genetic factors, learning, or both.

Mike B.'s mother's drug abuse pattern was so subtle he never put two and two together when he lived at home. She rarely drank—only at parties—and the pills she took were all prescribed. But her medicine cabinet and one drawer in the kitchen were always loaded with pill bottles. When Miltown, the first of the modern tranquilizers, came out in the 1950s, Mike's mom was asking her doctor for it in no time. She was a tense, driven woman, and her doctors saw no reason why they should not try to help her relax and get to sleep. She drank a lot of coffee, smoked, and frequently dieted, taking a variety of amphetamines.

Mike's father didn't use any drugs or drink. His wife wished he would—she thought it would calm his temper and relax him. Brutal fights between his parents were common when Mike was young. Once, when he was eight, Mike and his four-year-old sister Linda cowered unseen, crying, while his father bloodied his mother's nose. During a sudden silence some minutes later, the mother, hearing how upset her children were, rushed to telephone their pediatrician to prescribe a sedative for them. He complied, ordering phenobarbital. Some years later, when Linda's first big crush broke her heart, more of the sedative was prescribed to calm her. This was about the time too, Mike remembered, when Linda began to be aware of her

chubbiness; the pediatrician, at the mother's behest, prescribed Dexamyl.

Mike took pills himself only when he had colds or a sore throat. He didn't even like aspirin. And he didn't seem to suffer the emotional upsets that Linda did. Mike went away to college when Linda was 14. Through the years, living in different cities, he and Linda grew apart.

Her apparent suicide years later forced him to come to terms with his family's pattern of pill taking. Linda was 30 and her marriage had broken up days before. She had overdosed on what doctors estimated to be literally hundreds of barbiturates and tranquilizers, all from legal prescriptions filled and kept over a period of years. His first shocked question was: What was she doing with so many pills? The tragic pattern soon became clear. Pills for escape from pain, anger, tension, frustration, hurt—Mike's mother had started Linda on a pill-taking pattern that ended in her permanent escape from everything.

The Family's Involvement

As in Mike's family, drug abuse, particularly of prescription drugs, may not be seen for what it is. And denial can operate on the group level too.

Many families deny that there is any problem with drugs. Others may recognize that one member has a drug problem but will deny that the family as a whole is troubled. Family therapists believe that certain families unconsciously have a vested interest in keeping the drug-abusing member on drugs. They use the drug abuser as a scapegoat, pointing to him or her as "the problem" or as the one responsible for all their problems. If the drug abuser manages nonetheless to break free of drugs, another member of the family may all of a sudden develop a drug problem! Because of this, and because drug abuse is a terrible drain on a family's emotional and financial resources, family therapy is often recommended. Al-Anon, a self-help organization for relatives and friends of alcoholics and other substance abusers, can help you deal with the consequences of another person's drug abuse, and can help you identify how you contribute—or how you don't—to the problem. Information on Al-Anon and family therapy, along with other avenues of help, is provided in chapter 5.

Recognizing the Signs

You may have a strong suspicion but not know how to tell if drugs have crept into your family. And with drugs so available to children, it is hard to know whether a substance is causing them to act as they do or if adolescence is the culprit.

The signs and symptoms listed on pages 64–66 are useful but not conclusive. Look for any sudden, drastic change in health or behavior—with a child, a sudden unexplained drop in grades; with an adult, a sudden need for large sums of money, or unusual emotional displays. Frequent brief disappearances from the room, with a return in a different mood, may be telling. Sudden change in attention to dress and grooming, new eating habits, excuse making, lying, can all be signs of other difficulties, but if you think drugs could be involved: ask.

Confrontation

Reactions will vary from indignation to outrage to honest denial to honest confession—often depending on how the question is delivered. Be supportive and nonthreatening. Say what you have noticed—the moodiness, the slipped grades, the absenteeism, the euphoria, the drowsiness. Offer a willingness to listen and to help in finding a solution. Try not to judge the behavior but to see it as a problem. Address the problem or factors that may contribute to the drug abuse—a child's poor opinion of himself or herself, loneliness, boredom, or simply unchecked availability. If the child's problem is a reflection of a parent's own drug difficulty, or symptomatic of a breakdown in the family, be prepared to face your own involvement and to consider seeking help for the entire family. Family therapy is equally appropriate when the adult or adults are the abusers.

The child's school may be able to provide help or information. Educators are often grateful to be able to work with parents on behalf of the children. Contact the teacher or administrator who is in the best position to know about your child's behavior and to work with him or her. Usually it is *not* advisable to contact an employer, but if there is an Employee Assistance Program where your family drug abuser works, recommend that he or she seek

help. These programs are confidential and often good sources for referral to drug programs in the community.

Intervention

When denial is stubborn and strong, some drug counselors and self-help organizations recommend a technique called "intervention." The point is not to wring a confession but to force the drug abuser to face up to the problem and do something about it.

For an intervention, gather together as many people as possible who truly *care* about the person—close people from work, friends, the family doctor, family members. Have them present to deliver carefully documented, undeniable evidence of drug abuse or drug abuse behavior. If you can find the drugs themselves, or paraphernalia, bring them. Testify to days of work missed and sloppiness of projects, productivity, or performance. Have the children remind Daddy of his "talking funny" and all his broken promises. Be blunt, supply all the details, but deliver them as an act of kindness. Everyone is there to help—all you hold against the person is the drug.

If your drug abuser insists, despite all the gory details from his boss and his sister, his wife, his mother, his best friend, and his two children, that he doesn't have a problem, challenge him: "Howie, if that drug is no problem to you as you say, prove it—go off the stuff." But if he (or she) begins to rationalize the drug use ("I only do that because . . ."), recognize that he is beginning to admit to a problem.

Don't be afraid to intervene in less formal ways. Call the doctor who is prescribing the pills you believe are being abused; say there is a possible problem and suggest strongly that he or she check it out when the patient next comes by or calls for a prescription. (The doctor's responsibilities, ethical and legal, are covered in chapter 6.) Your responsibilities toward someone you love who goes off the deep end with drugs go as far as you are willing to take them. But only the drug abuser can control the behavior. The most you can do is provide help, love, support, and self-scrutiny, and to agree to work together toward change.

APPROPRIATE USE OF PSYCHOACTIVE DRUGS

Trying to define what is appropriate use of drugs or a drug in particular gets us back to where we started: what is "right" often depends on society's attitude toward intoxicants and intoxicated people.

In terms of safety, however, for most people appropriate use of psychoactive substances means keeping it to a short course at the lowest effective dosage. For the addicted or addiction-prone, use may be appropriate only in a medical emergency. Short of that, in situations where another person might safely (although not necessarily legally) take a drug—pain killers and tranquilizers for a tennis injury, Valium or a stimulant during exam week—an addict or predisposed individual will have to turn to natural, nondrug alternatives. Meditation, acupuncture, massage, heat therapy, relaxation techniques, hypnosis, biofeedback, exercise programs—whatever works to relax, calm, energize, or lessen pain naturally or mechanically is recommended. (Some of these techniques, including acupuncture, are also used in detoxification and to treat continuing drug hunger; see chapter 5.)

Natural ways of coping may also come in handy for the nonaddicted majority who wish to break a long-term pattern of using pills to cope with the mundane miseries of life—big presentation, important date, family blowup, slump in the stock market. Drug treatment specialists as well as drug companies have begun to recommend to doctors that they not prescribe for these "situational anxiety" states, but only for severe anxiety or physical states that truly interfere with functioning. Valium may be appropriate for the first few days of deep emotional shock following the sudden death of a loved one. But it should soon be discontinued and the natural coping mechanisms, say therapists, encouraged to operate; for the actual, miserable experience of pain and anxiety is essential to survival. Writes British medical researcher John Marks in a text on the benzodiazepines written for physicians: "Anxiety is a normal emotion and serves in nature as a valuable function inducing beneficial adaptive change. The intervention of treatment merely to suppress anxiety will prevent or retard the appropriate adaptation and may do more harm than good." Medication to reduce anxiety, he states, will have

greatest benefit when ability to function and perform begins to be impaired. This point varies for everybody, but prescribing antianxiety pills before that point is reached can lead to stunting of a person's survival mechanisms. *Given a pill at every emotional crisis, who can learn how to endure, grow from, and transcend the pain of life*?

This is the most far-reaching consequence of children's drug use. If Stevie starts taking pills in junior high when life is beginning to reveal its stresses, he'll never build his coping muscles for when he truly needs them. Drugs, say counselors and therapists, lure kids into thinking that life is supposed to provide quick relief and easy answers. They never learn to wait the few weeks it might take for the worst of a heartbreak or disappointment to subside. Drugs do not correct anything. All they do is alter the reaction.

"The causal therapy for the patient mentally disturbed by stress is the removal of the stress, not the suppression of its manifestations." Dr. Marks admonishes his colleagues.

Going off drugs can itself be highly stressful. To remove *this* stress may require outside assistance. How to get assistance is the subject of the next chapter.

5
Getting Help

The number of services available for drug abusers and addicts is huge and ever-growing. There are hospital detoxification units, residential medical/psychological drug treatment centers, therapeutic communities, outpatient clinics and counseling centers, community outreach programs, self-help support groups, crisis hotlines, and individual doctors and therapists.

Approaches to detoxification and treatment are varied. Some insist on total abstinence even during the withdrawal period ("cold turkey") and disdain use of any medications, aspirin included. Others (specifically, methadone maintenance clinics) substitute one, more controlled addiction for the original one. Still others are satisfied if they change an individual's drug use pattern into a less destructive one.

SOURCES OF INFORMATION

All 50 states have substance abuse agencies which coordinate information on available drug treatment facilities and programs. The best sources of information on local options are the city, county, or community coordinators of these agencies. (See pp. 87–91 for the name and address of the appropriate agency for each state.) If there is no listing for that agency in your local telephone directory, write or phone the state office for the local coordinator to contact. *These coordinators are not connected with law enforcement.* They are there to direct you to the appropriate resources and are not interested in reporting you for drug use.

Your doctor may know about these programs and may be able to match you to one best suited to your problem and your personality.

Hospitals, social service departments, community men-

tal health associations, professional medical and psychological associations, school guidance departments, Employee Assistance Programs, and religious institutions are other good sources of information. For "alternative" treatment and referrals methods, try the American Holistic Medical Association (6932 Little River Turnpike, Annandale, VA 22003; [703] 642-5880). Crisis hotlines (call directory assistance) are often good referral sources.

WHAT DO YOU WANT OR NEED?

In general, there are two aspects of drug treatment: detoxification and counseling/rehabilitation. Programs or approaches which do not aid with adjustment to a drug-free life-style are the least effective in keeping clients off drugs in the long run. The hardest part of the process is *staying* off.

Because there are so many approaches and programs, it is best to begin thinking now about what you are willing to do to conquer your drug problem and what you wish to accomplish.

- Do you want to end your drug use or only to modify it?
- Are you willing to give up all drugs or only the drug with which you are having the problem?
- Are you willing to change your life-style, even give up your friends?
- Are you willing to move into a hospital or facility?
- Do you want drug detoxification, counseling, or drug detoxification with counseling?
- How are you at following orders?
- How motivated are you to change?
- Have you tried to stop or to change your drug habits in the past? If so, which approaches or treatment (or aspects of them) seemed to work best for you, and which failed?

Be as realistic as possible about who you are, what you want, and what you are likely to accomplish, in order to choose the approach that is best tailored to your needs and goals. If you are a loner and do not care to affiliate with groups, there is little point in joining a therapeutic community which will insist on your total commitment to the "family." If your goal is only to cut back, you are wasting your time at Alcoholics Anonymous.

DETOXIFICATION AND WITHDRAWAL METHODS AND RESOURCES

The procedures used to withdraw a physically dependent user from a drug are called detoxification. Methods used vary depending on the doctor or program and on the drug. In "cold turkey" you stop taking the drug and endure the resulting abstinence syndrome until it is over. Some programs will not prescribe medications to ease or aid the withdrawal; some will. Medically based programs will, of course, assist in easing the symptoms and making the experience as comfortable and as safe as possible.

In medical detoxification of sedative-hypnotics which produce physical dependence and have a substantial risk of withdrawal seizures, administered by physicians, the principle is to slowly detoxify you from the drug of abuse by administering steadily decreasing doses of the drug, or by substituting another drug and then steadily decreasing its dosage. The substituted drug is one to which you are cross-tolerant but which is less toxic and has a lower addiction potential than the one you have been taking. (Cross-tolerant substances will meet the same dependency need of body cells and therefore forestall withdrawal; the term "cross-dependence" is sometimes used in this context.) Phenobarbital, a slower-acting, low-potency barbiturate, is often used for withdrawal from alcohol, minor tranquilizers, and sedatives. The substituted drug is first administered just to the point of intoxication, then steadily lessened.

Methadone, a drug cross-tolerant to narcotics, is often used to detoxify heroin addicts and as a substitute drug. Methadone, however, is as toxic as heroin and higher in addiction potential. The methadone is administered to stabilize withdrawal, not to promote euphoria (although clients often report that it makes them high). The patient takes 10–40 mg. of methadone in a gradual reduction program for 21 days and then is discontinued, thus avoiding methadone addiction.

During detoxification, medication may also be provided for anxiety and depression. In treating alcoholics and sedative addicts this is controversial, however, in light of cross-addictive possibilities.

Detoxification or withdrawal procedures are listed for each drug in section II. If you are dependent on sedatives

(tranquilizers included), you should usually be hospitalized for the detoxification period. If a residential program has 24-hour on-site medical supervision, it is safe to withdraw from sedatives on the premises. Hospital detoxification is recommended if you are pregnant or at risk of exacerbating a medical or psychiatric condition.

Inpatient detoxification generally lasts three to six weeks. Some medical insurance policies offer coverage for this type of treatment.

Outpatient facilities, such as free clinics or other drug treatment facilities, can provide sufficient, and cheaper, supervision of withdrawal from all other drugs.

Outpatient treatment is sufficient for drugs that promote primarily psychological dependency, but inpatient programs may be desirable. Just because the withdrawal is not physical doesn't mean it is comfortable or easy. Stimulant users with long-standing, high-dose habits may have to contend with serious depression during withdrawal. Antidepressants may be required. If you feel the least bit suicidal, supervision is essential.

Private physicians, sometimes those specializing in toxicology, may also provide detoxification or treatment. These specialists are often consulted by long-time users who have no intention of quitting; they want to reduce their tolerance to the drug and return to a more effective, less harmful, lower dose. Your local medical association may be a source of information about toxicologists or other specialists who treat drug-using patients in this way. (Word-of-mouth is probably better.) Other detoxification resources may be used to achieve this goal, but make sure first that their philosophy does not preclude it.

THERAPEUTIC COMMUNITIES

These are nonmedical residential self-help programs based originally on the Synanon model, the California therapeutic community founded by Charles Dederich, a recovered alcoholic, in the late 1950s. Dederich and his followers demonstrated that it was possible for addicts to remain drug free and to reenter the workaday world. These days, Synanon's goals (and those of some other communities patterned after it) have changed significantly. Residents are encouraged to remain within the community rather

than to rejoin society at large. Some such communities may be cultish and demand unflagging devotion to a charismatic leader. Many therapeutic communities demand strict adherence to their rules and regulations; this disciplined commitment is often the basis for their success.

Therapeutic communities generally require absolute abstinence from all drugs. Some insist on cold turkey withdrawal. Residence lasts up to two years, during which all activities are centered around the community and acquiring new drug-free habits. Group therapy is often the principal treatment technique. Newcomers have the lowest status and must prove themselves worthy of privileges.The atmosphere can be that of a loving family with strong, positive values. In this way a good therapeutic community can accomplish a total change in life-style and commitment to a new life. Therapeutic communities exclusively for medical professionals can be highly effective in helping doctors and nurses change their drug habits while remaining within the medical "family."

Because therapeutic communities can vary so widely, in cost as well as in philosophy and treatment methods, it is essential to inspect them closely. Find out exactly how the community is run, who is on the board of directors (do they represent leading human services representatives from the community?), whether there are medical services and/or on-call medical consultants. Does the community have a leader or leadership? What are the qualifications of staff members? Ask them to specify their values, follow-up success rates, exact approach, and goals, and their expectations from new members.

OUTPATIENT CLINICS

Called anything from free clinics to community clinics to drug-free clinics, these offer a wide range of walk-in treatment services, often free of charge. These clinics are good resources for the withdrawal period of opiates, amphetamines, and cocaine. Some provide medication for symptomatic relief during withdrawal; the "drug-free" ones will refer you to other resources. Based on the model of the San Francisco Haight-Ashbury Free Clinic, which was the first (1967), free clinics often provide a wide range of medical, psychotherapeutic, and self-help services for drug abusers

and families of drug abusers in a "nonestablishment" atmosphere. Some also provide or recommend "alternative" treatments, such as acupuncture.

The overall trend in outpatient care is to provide treatment tailored to the specific needs of the client, as ascertained in the intake interview. These facilities can be the best resources for crucial ongoing support.

METHADONE MAINTENANCE CLINICS

Replacing heroin addiction with addiction to methadone, these clinics are best seen as a last resort when all attempts to stop fail. Being addicted to a legal substance rather than an illegal one is the only way some addicts can rehabilitate themselves and resume productive lives. In Great Britain, where addicts may receive heroin from government-controlled clinics, their addiction need not force them into criminal activity and constant anxiety over whether they will be able to obtain a supply. In the U.S. the only legal narcotics addiction is methadone maintenance. It is used principally because it is a drug which blocks heroin from the opiate receptors and is effective in an oral dose form. It suppresses the addict's narcotics hunger, and heroin has no effect while taking methadone in a replacement/maintenance program. Most methadone maintenance clinics offer some counseling, and all require frequent urine tests to monitor drug levels in the system. Some reports quote a 40 to 60 percent success rate in keeping addicts from returning to heroin. The clinics are willing to help an addict detoxify from methadone when he or she is ready; but this is rarely accomplished. Methadone, it has been discovered, is much more difficult to withdraw from than heroin and the process can take many months. (Methadone is also a much desired street drug, considered "better" than heroin.)

ALTERNATIVE APPROACHES

"The fact remains," says the AMA's *Drug Abuse, A Guide for the Primary Care Physician*, "that no single treatment method yet devised has solved, or promises to solve, all of the complex problems involved in drug abuse. There still is confusion and controversy about the nature of drug dependence and how society should deal with it. Ideally, a vari-

ety of methods and approaches should be available to help the multitude of people who abuse drugs today."

Indeed, the methods are multiplying and some approaches previously considered "far out" are taking their place alongside standard treatment, detoxification, and rehabilitation techniques in drug clinics. These include hypnosis, acupuncture, biofeedback, and behavior modification techniques for conditioning to new habits and dealing with drug craving. An innovative method involving mild electric currents delivered through electrodes taped behind the ears is claimed to have helped such rock stars as Keith Richards, Eric Clapton, and Peter Townshend of The Who to successfully end their long-term drug addictions. Devised by Dr. Margaret Patterson, a Scottish surgeon now living in southern California, the method is called NeuroElectric Therapy (NET) and adherents claim it is particularly successful in helping end drug craving. Acupuncture treatment, used by such programs as the Haight-Ashbury Free Medical Clinic, has similar results to the NeuroElectric Therapy. It's thought that a similar biochemical reaction occurs. Like all detoxification procedures, this produces best results when combined with psychotherapy or counseling and retraining for a new life-style.

SELF-HELP

No one knows more about getting off and staying off drugs than someone who has successfully done both. And no one is better equipped than a recovering addict or alcoholic to understand the struggle. Self-help approaches, based on pooled experience and mutual support, are increasingly widespread.

The grandfather of this method is Alcoholics Anonymous (which now deals with other addictions too, since alcoholics are frequently involved with other substances). AA is a self-help organization run entirely by recovered or recovering alcoholics. Its network is worldwide and reaches into almost every community in the U.S. AA requires total abstinence and has a spiritual orientation (no particular religion is espoused). It provides a specific program to follow as well as the critical variable that most addicts require to get off and stay off the substance: each other. AA provides round-the-clock assistance. If there is no list-

ing in your telephone book, write Alcoholics Anonymous, P.O. Box 459, Grand Central Station, New York, NY 10017. Organizations related to AA include Narcotics Anonymous (NA) and Pills Anonymous; and, for families and loved ones of abusers: Al-Anon, Alateen, Children of Alcoholics (for adults whose parents were or are alcoholics), and Pil-Anon. AA is a good source of information about detoxification and medical problems associated with substance abuse.

Recognizing the efficacy of self-help and mutual aid, drug treatment centers and clinics increasingly sponsor support and identification groups. It is also possible to start your own group and to work with your own friends in getting off and staying off. For information on how to form and run your own group, contact the National Self-Help Clearinghouse (33 W. 42 St., Rm. 1206-A, New York, NY 10036); or the Self-Help Center (1600 Dodge Ave., Suite S-122, Evanston, IL 60201).

The Clearinghouse will also help you locate existing self-help groups. Send a stamped self-addressed envelope and state the nature of your problem. They will reply with information about national organizations to contact, which in turn will supply addresses of local resources.

The Self-Help Center provides a similar service, but is best equipped for the Chicago metropolitan area.

PSYCHOTHERAPY

Knowledge among psychotherapists about drug abuse varies. If you consult a therapist specifically for a drug problem, it is best to obtain a referral from a drug treatment clinic or organization; that way you'll ensure that the therapist will be knowledgeable and sympathetic to your problem. Psychotherapy is often useful as an adjunct to other treatments to help you work out the problems that contributed to your drug abuse and those which have resulted from it. Family therapy is lately seen as advantageous in producing lasting change, for the family is the environment from which the drug abuser comes and often must return.

SOURCES OF INFORMATION ON DRUG ABUSE TREATMENT PROGRAMS: STATE AGENCIES

ALABAMA
Div. of Alcoholism and Drug Abuse
Dept. of Mental Health
135 S. Union St.
Montgomery 36130
(205) 265-2301

ALASKA
Office of Alcoholism and Drug Abuse
Pouch H-05-F
Juneau 99811
(907) 586-6201

ARIZONA
Drug Abuse Section
Dept. of Health Services
2500 East Van Buren
Phoenix 85008
(602) 255-1239

ARKANSAS
Office on Alcohol and Drug Abuse Prevention
Suite 310
1515 W. 7th St.
Little Rock 72202
(501) 371-2604

CALIFORNIA
Dept. of Alcohol and Drug Abuse
111 Capital Mall
Sacramento 95814
(916) 322-2974

COLORADO
Alcoholism and Drug Abuse Div.
Dept. of Health
4210 E. 11th Ave.
Denver 80220
(303) 320-8333

CONNECTICUT
Alcohol and Drug Abuse Commission
999 Asylum Ave.
Hartford 06105
(203) 566-4145

DELAWARE
Bureau of Alcoholism and Drug Abuse
1901 N. DuPont Hwy.
Newcastle 19720
(302) 421-6101

DISTRICT OF COLUMBIA
Department of Human Services
Office of Health Planning and Development
601 Indiana Ave., N.W.
Washington, D.C. 20004
(202) 724-5641

FLORIDA
Drug Abuse Program
1317 Winewood Blvd.
Tallahassee 32301
(904) 488-0900

GEORGIA
Alcoholism and Drug Abuse Section
Div. of Mental Health & Mental Retardation
878 Peachtree St.
Atlanta 30309
(404) 894-4204

HAWAII
Alcohol and Drug Abuse Branch
1270 Queen Emma St.
Honolulu 96813
(808) 548-7655

IDAHO
Bureau of Substance Abuse
450 W. State
Boise 83720
(208) 334-4368

ILLINOIS
Dangerous Drugs Commission
300 N. State St.
Chicago 60610
(312) 822-9860

INDIANA
Div. of Addiction Services
Dept. of Mental Health
429 N. Pennsylvania
Indianapolis 46204
(317) 232-7816

IOWA
Dept. of Substance Abuse
505 Fifth Ave.
Des Moines 50319
(515) 281-3641

KANSAS
Dept. of Social Rehabilitation Services
Alcohol & Drug Abuse Services
2700 W. Sixth St.
Topeka 66606
(913) 296-3925

KENTUCKY
Cabinet for Human Resources
Dept. of Substance Abuse
275 E. Main St.
Frankfort 40621
(502) 564-2880

LOUISIANA
Office of Mental Health and Substance Abuse
P.O. Box 4049
Baton Rouge 70821
(504) 342-2575

MAINE
Office of Alcoholism and Drug Abuse Prevention
32 Winthrop St.
Augusta 04330
(207) 289-2781

MARYLAND
State Drug Abuse Administration
201 W. Preston St.
Baltimore 21201
(301) 282-7404

MASSACHUSETTS
Div. of Drug Rehabilitation
160 N. Washington St.
Boston 02114
(617) 727-8614

MICHIGAN
Office of Substance Abuse Ser-vices
Dept. of Public Health
3500 N. Logan St.
Lansing 48909
(517) 373-8600

MINNESOTA
Chemical Dependency Program Div.
Dept. of Public Welfare
568 Cedar
St. Paul 55155
(612) 296-4610

MISSISSIPPI
Div. of Alcohol & Drug Abuse
Dept. of Mental Health
1102 Robert E. Lee State Office Bldg.
Jackson 39201
(601) 359-1297

MISSOURI
Div. of Alcoholism and Drug Abuse
Dept. of Mental Health
2002 Missouri Blvd.
P.O. Box 687
Jefferson City 65102
(314) 751-4942

MONTANA
Alcohol & Drug Abuse Div.
Dept. of Institutions
1539 11th Ave.
Helena 59620
(406) 449-2827

NEBRASKA
Div. on Alcoholism and Drug Abuse
P.O. Box 94728
Lincoln 68509
(402) 471-2851

NEVADA
Bureau of Alcohol & Drug Abuse
505 E. King St.
Carson City 89710
(702) 885-4790

NEW HAMPSHIRE
State Alcohol & Drug Abuse Program
Hazen Drive
Concord 03301
(603) 271-4630

NEW JERSEY
Div. of Narcotic & Drug Abuse Control
129 E. Hanover St.
Trenton 08625
(609) 292-5760

NEW MEXICO
Substance Abuse Bureau
Behavioral Services Div.
Crown Building
P.O. Box 968
Santa Fe 87503
(505) 984-0020

NEW YORK
Div. of Substance Abuse Services
Executive Park S.
Box 8200
Albany 12203
(518) 457-7629

NORTH CAROLINA
Alcohol and Drug Abuse Section
Dept. of Human Resources
325 N. Salisbury St.
Raleigh 27611
(919) 733-4670

NORTH DAKOTA
Div. of Alcoholism & Drug Abuse
Dept. of Human Services
State Capitol
Bismarck 58505
(701) 224-2767

OHIO
Bureau of Drug Abuse
65 S. Front St.
Columbus 43215
(614) 466-9023

OKLAHOMA
Drug Abuse Services
Dept. of Mental Health
P.O. Box 53277, Capitol Station
Oklahoma City 73152
(405) 521-0044

OREGON
Dept. of Human Resources
Mental Health Div.
Office of Programs for Alcohol & Drug Problems
2575 Bittern St., N.E.
Salem 97310
(503) 378-2163

PENNSYLVANIA
Office of Drug and Alcohol Programs
Dept. of Health
Health and Welfare Building
Harrisburg 17108
(717) 787-9857

RHODE ISLAND
Div. of Substance Abuse
Rhode Island Medical Center
Substance Administration Building
Cranston 02920
(401) 464-2091

SOUTH CAROLINA
Commission on Alcohol & Drug Abuse
3700 Forest Dr.
Columbia 29204
(803) 758-2521

SOUTH DAKOTA
Div. of Alcohol and Drug Abuse
523 E. Capitol
Joe Foss Bldg.
Pierre 57501
(605) 773-3123

TENNESSEE
Alcohol & Drug Abuse Services
505 Deaderick St.
James K. Polk Bldg.
Nashville 37219
(615) 741-1921

TEXAS
Drug Abuse Prevention Div.
Dept. of Community Affairs
P.O. Box 13166
Austin 78711
(512) 443-4100

UTAH
Div. of Alcoholism & Drugs
P.O. Box 2500
Salt Lake City 84110
(801) 533-6532

VERMONT
Alcohol & Drug Abuse Div.
Dept. of Social & Rehabilitation Services
103 S. Main St.
Waterbury 05676
(802) 241-2175

VIRGINIA
Div. of Substance Abuse
Dept. of Mental Rehabilitation & Retardation
109 Governor St.
P.O. Box 1797
Richmond 23214
(804) 786-5313

WASHINGTON
Bureau of Alcohol & Substance Abuse
Dept. of Social & Health Services Office Bldg.
Mail Stop OB-44W
Olympia 98504
(206) 753-3073

WEST VIRGINIA
Div. of Alcohol and Drug Abuse
State Capitol
1800 Kanawha Blvd. E
Charleston 25305
(304) 348-3616

WISCONSIN
Office of Alcohol & Other Drug Abuse
P.O. Box 7851
One W. Wilson St.
Madison 53707
(608) 266-2717

WYOMING
Div. of Community Programs
Substance Abuse Programs
Hathaway Bldg.
Cheyenne 82002
(307) 777-7118

PUERTO RICO
Dept. of Addiction Control Services
Alcohol and Drug Abuse Programs
Box B-Y, Rio Piedras Station
Rio Piedras 00928
(809) 763-5014

AMERICAN SAMOA
LBJ Tropical Medical Center
Dept. of Mental Health Clinic
Pago Pago 96799

GUAM
Mental Health & Substance
Abuse Agency
P.O. Box 20999
Guam 96921

VIRGIN ISLANDS
Div. of Mental Health, Alcoholism & Drug Dependency
Services
P.O. Box 7329
St. Thomas 00801
(809) 774-7265

TRUST TERRITORIES
Director of Health Services
Office of the High Commissioner
Saipan 96950

Source: *National Directory of Drug Abuse and Alcoholism Treatment Programs.* (U.S. Department of Health and Human Services; National Institute on Drug Abuse and National Institute on Alcohol Abuse and Alcoholism)

6

The Doctor's Responsibilities—and Your Own

A physician is bound by more than medical training when prescribing pills to a patient. Certainly a doctor is obligated to try to diagnose a patient's condition and, after diagnosis, to treat it—through medication, surgery, or other means—as effectively as possible.

Many of a physician's responsibilities are spelled out by laws and professional regulations which require the doctor to follow certain guidelines when prescribing medications, or risk losing his license or being dragged into court on malpractice charges.

Most pills are prescribed in accordance with accepted medical standards. They represent the appropriate treatment for a known or suspected medical condition. Many other prescriptions are of questionable wisdom, however. Statistics show that thousands of doctors routinely prescribe certain drugs—especially tranquilizers—for just about every patient who claims to have trouble getting to sleep. Doctors also often prescribe pills that are unsuitable for the condition being treated; such prescriptions may amount to experimental usage, with the patient unaware he has been used as a guinea pig.

A doctor sometimes prescribes a medication that is hazardous to the patient because of allergy to it, or some physical condition which should rule it out.

From time to time drugs are even prescribed by doctors who haven't bothered to check the patient's health record or prior experience with medications. The results can be tragic.

In a recent case a Connecticut woman was given the pain killer ibuprofen (Motrin), and suffered a severe allergic

reaction resulting in her death a few hours later. Medical references warn that the drug should not be used by anyone sensitive to aspirin, and the woman's medical records plainly noted she was allergic to aspirin. After her death her husband and children accepted an out-of-court settlement of $680,000 from her doctor's insurance company, although the family had not filed a malpractice suit.

Laws and regulations require the doctor to practice medicine at least as well as an average physician in the same or a similar community. If the doctor who prescribed your tranquilizer is a general practitioner, the choice of drug—and the decision to use a medication at all—should result from at least the level of expertise possessed by other general practitioners in the same area or a similar area.

The tranquilizer doesn't have to be the *best* medication available. If the majority of physicians in your community prescribe it for most patients complaining of mild insomnia, and if it is suggested by the manufacturer—and approved by the government—as a possible treatment for insomnia, then the prescription most likely meets the "average physician" standard.

A 50-year-old New York man suffering from depression recently discovered how the wrong pills can be prescribed by large numbers of doctors with very little liability. Martin B. consulted a psychiatrist about his depression and was given a four-week series of electroshock treatments, without success. Then the psychiatrist prescribed the antipsychotic drug fluphenazine hydrochloride (Prolixin), which Martin B. took faithfully for two years while visiting the psychiatrist every month. Eventually the patient realized the drug was doing him no good and stopped taking it. He also stopped seeing the psychiatrist.

A few weeks later Martin B.'s wife noticed him sticking out his tongue frequently, smacking his lips, and making chewing motions. He seemed unaware of this. His condition was eventually diagnosed as tardive dyskinesia, an occasional adverse reaction to fluphenazine hydrochloride and other antipsychotic drugs. There is no known cure.

Only then did Martin B. learn that the drug he had been given is not considered the best medication for depression, and that many other drugs should have been tried first. Yet hundreds of physicians and psychiatrists prescribe antipsychotic drugs for conditions just like his. Because the drug

has *some* potential for helping depressed patients, and because it is commonly used by the medical community, there was no legal recourse against the psychiatrist for prescribing it.

Unfortunately, questions about the wisdom of prescriptions seldom arise until after the pills have proven to be harmful, or even deadly. Even then, physicians with poor pill-prescribing practices seldom face criminal charges. They are occasionally sued for medical malpractice and even less often are investigated by their medical colleagues—who may, in the most serious cases, suspend the errant doctor's license.

You too have certain duties if you want to avoid being harmed by improper pill prescribing. First, tell the doctor everything about yourself. Reveal the extent of your drug or alcohol use, as well as your family's history with drugs and alcohol. Your medical history is strictly confidential; physicians have been successfully sued for revealing details of their patients' medical conditions to people not directly involved in treatment, such as nurses or X-ray technicians. They are only required to disclose your files under subpoena.

Recovered addicts may be uneasy about confessing and discussing their history of addiction. But only when there is an honest and cooperative physician-patient relationship can the risks and benefits of medications be weighed, and the condition appropriately treated. Narcotic pain killers can spark a recovered addict's drug hunger and start the cycle all over again; forewarned, the physician can choose from among the new nonnarcotic pain killers. When the benefits of a drug outweigh its risks—as in the need for fentanyl in a complicated childbirth—the patient can be forewarned in time to gear up against the possible onset of drug hunger.

Open communication between patient and doctor is the best way to head off abuse and misuse and modify the staggering prescription drug abuse statistics. If your doctor is unwilling to discuss the pros and cons of drugs with you, is harsh or condescending once your use is revealed, or is unfamiliar with the latest knowledge about drugs, addiction, or dependency, consult another doctor. Find someone who knows at least as much as you do, sees

drug abuse—not the drug abuser—as the problem, and is ready and waiting to help you with appropriate treatment.

Below we list your physician's duties and yours—and also those of your pharmacist.

Your Responsibilities:

- Know the generic names and brand names of the drugs you're taking.
- Tell the doctor who is giving you a prescription what other drugs you are using, including nonprescription drugs.
- Tell your doctor immediately if you become pregnant while taking drugs, or if you decide you want to become pregnant.
- Let your doctor know of any allergies you have experienced, however minor they may seem to you.
- Make sure you ask your doctor whether you can safely drink alcohol while taking the prescribed medicine.
- Ask whether the pills will have any effect on your ability to drive a car, or operate potentially dangerous machinery.
- Find out, by asking your doctor or pharmacist, whether you should avoid any specific foods or beverages while using the medicine.
- Follow instructions on dosage and schedule for the pills you're taking.
- Tell your doctor promptly if you think you're experiencing any adverse effects of the pills, or are suffering from some degree of overdose.
- If you believe you have had a major overdose, call for help or go immediately to the nearest emergency room for treatment. If possible, take with you the container the pills were in so hospital personnel can quickly identify the medicine involved and begin life-saving treatment without delay.

Your Doctor's Responsibilities:

- Your doctor should tell you exactly why the pills are being prescribed, that is, what your condition is and how the pills may help you.
- Your doctor should tell you what common side effects, such as headache, upset stomach, or sleepiness, can be expected from the pills.

- Your physician should also tell you what serious adverse effects, such as unusual heartbeat, difficulty breathing, unusual pains, or coma, may occur, and what to do if they do occur.
- Your doctor should be precise about how often to take the pills being prescribed, what dosage to take each time, and how long you should continue using the pills.
- You should be told whether any foods or beverages, especially alcohol, should be avoided while you're using the medicine.
- Your doctor should ask you detailed questions, perhaps through an assistant or by having you fill out a form, about your own and your family's medical history before prescribing any of the drugs described in this book or any other potentially dangerous drugs.
- Your physician should keep accurate, up-to-date records of every pill prescribed for you, and how often each prescription gets refilled.
- You should expect your doctor to spend as much time as is needed to answer questions about your medication.

Your Pharmacist's Responsibilities:

- The pharmacist filling your prescription must precisely follow the doctor's instructions written on the prescription form, and question the doctor if there is any doubt about the dosage or the medication.
- The pharmacist should be expected to answer questions you have about the pills you're getting, but cannot be expected to tell you why the doctor ordered the pills.
- The pharmacist should tell you what foods or beverages, if any, should be avoided while taking the pills, and whether the pills should be taken before, during, or after meals.
- The pharmacist should refuse to refill a prescription without authorization from the physician.

DRUG INTERACTIONS		
Type of Drug	**May Interact with:**	**To Produce:**
Amphetamines	MAO inhibitors	hypertensive crisis (severe hypertension)
	antidepressants	more intense amphetamine reaction
	insulin	altered insulin requirements
	guanethidine sulfate	decreased antihypertensive effects
Methylphenidate hydrochloride	MAO inhibitors, antidepressants	increased effect of methylphenidate (may result in serious illness)
	guanethidine	decreased hypotensive effect
	anticoagulants, antidepressants, anticonvulsants, phenylbutazone, oxyphenbutazone	possible decrease in effectiveness of these drugs
Barbiturates	alcohol, antihistamines, other tranquilizers	increased sleepiness (may be fatal)
	anticoagulants, muscle relaxants, pain killers	decrease in effect of barbiturates and of other drugs
Ethchlorvynol	amitriptyline	delirium
	do *not* take with alcohol, antihistamines, other depressants	increased depressant effects
Methyprylon	antihistamines, alcohol, other depressants	increased sedative effects of methyprylon

DRUG INTERACTIONS

Type of Drug	May Interact with:	To Produce:
Methaqualone	alcohol, sleeping medications, antihistamines, tranquilizers, depressants	possible coma or death
Benzodiazepines	alcohol, tranquilizers, narcotics, sleeping pills, barbiturates, MAO inhibitors, antihistamines, antidepressants, depressants	very dangerous, even deadly effects
	cimetidine	possible prolonging of benzodiazepines' effects
	smoking	altered effectiveness of benzodiazepines (less drowsiness)
Carbamates	phenothiazines, tybamate and phenothiazines taken together	possible grand mal or petit mal seizures
	tranquilizers, alcohol, narcotics, barbiturates, sleeping pills, antihistamines, other depressants, antidepressants	excessive depression, sleepiness, fatigue
Hydroxyzine	alcohol, sedatives, tranquilizers, antihistamines, other depressants	increased drowsiness
Narcotic Analgesics	alcohol, sleeping medications, tranquilizers, other depressants	respiratory depression, hypotension, profound sedation, or coma
	use with care (and in reduced doses) with antihistamines, phenothiazines, antidepressants	increased depressant effects

DRUG INTERACTIONS		
Type of Drug	**May Interact with:**	**To Produce:**
Antipsychotics	barbiturates, sleeping pills, narcotics, tranquilizers, other depressants, (alcohol)	increased depressant effects
	antidiarrheal mixtures, antacids	decreased phenothiazine effects
	guanethidine	inhibit antihypertensive action of guanethidine
Antidepressants	MAO inhibitors	high fevers, convulsions, even death
	oral contraceptives	possible decrease in effects of antidepressants
	ethchlorvynol (large doses)	possible delirium
	vitamin C (large doses), smoking	decrease in effectiveness of antidepressants
	alcohol	possible enhancement of effects of alcohol
	antihypertensives	decreased antihypertensive effects
	anticoagulants	increased anticoagulant effects
	sedatives	increased depressant effects
	thyroid medications	heart arrhythmias
	amphetamines	increased blood pressure

7
Pills and the Law

There may be as many laws—federal, state, and local—governing the manufacturing, distribution, sale, and use of pills, as there are brands, sizes, and shapes of the medications.

Federal agencies have traditionally taken the lead in attempting to halt pill abuse. A series of laws passed over the last 50 years has established criteria for defining dangerous drugs and set up enforcement agencies to help assure they are used only for medically approved purposes.

The main aim of federal drug control law has been to halt the traffic in narcotics, mainly heroin. But dozens of other drugs—including all the pills described in this book—are covered by federal, state, or local drug control laws.

The federal government in 1970 enacted the Controlled Substances Act (technically Title II, Comprehensive Drug Abuse Prevention and Control Act of 1970, Public Law 91-513), which took the place of several previous, sometimes inconsistent laws. The act established five categories, or "schedules," listing potentially abused medications. Prison terms and fines can follow violations in any schedule, but the harshest penalties are reserved for Schedules I and II, the least severe for Schedule V.

The 1970 law distinguishes between trafficking in controlled drugs and possessing them for personal use without a prescription or other approval. Trafficking is unauthorized manufacturing or distributing, or possession of a controlled drug with intent to distribute. Trafficking can bring a 30-year jail sentence and a $50,000 fine.

Conviction for illegal possession for personal use of a drug listed in any of the five schedules is a misdemeanor punishable by a one-year jail term and/or a $5000 fine for the first offense (or, if the violator is under 21, a possible

year on probation followed by the destruction of all records of the conviction if the court approves), and penalties twice as severe for a subsequent offense.

Pharmacists are required to keep detailed records of the controlled drugs they dispense. Prescriptions must be kept on file, and inventories must be conducted at least every two years.

Decisions about which drugs belong in which schedule involve several agencies. The Drug Enforcement Agency and the Food and Drug Administration make preliminary evaluations and recommendations; then the DEA conducts hearings so that manufacturers and others can comment on the recommendations. If an administrative law judge drafts an order placing a drug in a schedule, the order becomes effective immediately.

Several factors must be considered before listing a drug or changing its schedule:

- evidence of the drug's effects on the mind or body;
- the state of current overall scientific knowledge about the drug;
- the drug's history and pattern of abuse;
- extent of abuse, i.e., whether abuse is a passing fad or widespread;
- risk to public health;
- extent of potential psychological or physical dependence; and
- whether the drug can easily be converted, in clandestine laboratories, to a drug already controlled by the 1970 law.

The government's five drug categories are:

SCHEDULE I

The drugs listed in Schedule I are the ones the government has determined have the highest potential for abuse. Usually they have no recognized medical use, except for experimental purposes. Substances include heroin and the hallucinogen LSD.

Extensive paperwork is required when Schedule I drugs are shipped. A special DEA document must be completed whenever the drugs change hands, and the government keeps close track of shipments and deliveries.

First offense penalties for trafficking in Schedule I drugs range from 5 years and $15,000 for a nonnarcotic drug to

15 years and $25,000 for a narcotic. Jail terms and fines are twice as severe for subsequent convictions.

Tight security is required at facilities making Schedule I drugs, including specially constructed vaults, alarm systems, and guards.

Since Schedule I drugs are almost always used within research institutions, there are no special prescription requirements.

SCHEDULE II

These drugs have legitimate medical uses, but possess a high potential for abuse. Most narcotics are listed in Schedule II, along with barbiturates and amphetamine compounds.

Extensive paperwork is also required when Schedule II drugs are shipped. Again, copies of a special DEA document must be completed.

Trafficking penalties are the same as those for Schedule I. Security requirements for manufacturers include specially constructed vaults, alarm systems, and guards.

Prescriptions for Schedule II drugs may be telephoned to a pharmacy only in an emergency, in which case the physician is required to provide the pharmacy with a written prescription within 72 hours. Prescriptions are void if not filled within six months. They may not be refilled.

SCHEDULE III

Drugs with moderate potential for abuse include nonbarbiturate sedatives, nonamphetamine stimulants (except cocaine, which is in Schedule II), and some narcotic preparations. Drugs in this category are viewed by the government as having the potential of leading to moderate or low physical dependence, or high psychological dependence.

Pharmacists and others who handle these drugs must maintain records that can be easily retrieved.

Penalties for trafficking in Schedule III drugs are five years and $15,000 for a first offense, and twice as long, or as much, for a subsequent conviction.

Security requirements are less strict: in lieu of a vault, for example, manufacturers may keep the drugs under surveillance in a secure area.

Prescriptions for Schedule III drugs can be telephoned to

a pharmacy by a physician, and can be refilled up to five times within six months, if the original prescription permits it.

SCHEDULE IV

Schedule IV drugs, which have less abuse potential than Schedule III drugs, and have limited likelihood of creating physical or psychological dependence, include some sedatives and several pain killers that do not contain narcotics.

Pharmacists and others who handle these drugs must maintain records that can be easily retrieved.

Penalties for trafficking are three years and $10,000 (first conviction), with penalties twice as severe for a subsequent conviction.

Security and prescription requirements are the same as for Schedule III substances.

SCHEDULE V

These drugs contain small amounts of narcotics and are used to control coughs and diarrhea. They have a low potential for abuse, and may lead to limited physical or psychological dependence.

Trafficking penalties are one year and $5000 fine (first offense), two years and $10,000 (subsequent).

Prescription requirements for many Schedule V drugs are the same as for Schedule III substances; however, many drugs in this group may be bought without prescription if the purchaser is at least 18 and can show identification. The purchaser's name is entered in a special log book maintained by the pharmacist and available for inspection by government drug control workers. Other record-keeping and security requirements are the same as for Schedule III drugs.

Prescriptions must be written in ink and include date of the prescription, full name and address of patient, and name, address, and DEA number of the physician who wrote the prescription.

The federal government has jurisdiction over importation into the United States and transportation across state lines of controlled drugs. Although drug violations within a state are state and local government concerns, there can

be a federal role even if the drug has never crossed a state border. If a telephone is used, for example, the federal government may become involved because the phone is considered an interstate communications device.

State and local governments often have drug laws carrying even tougher penalties than federal laws. New York State enacted laws a few years ago that added years to the possible federal penalties and thousands of dollars to the fines.

To help you understand how drug laws apply to the pills discussed in this book, here are some often asked questions about pills, with answers drawn from the law and from the experience of those whose work concerns drugs, medicine, and the law.

QUESTIONS AND ANSWERS ABOUT PILLS AND THE LAW

Q: If a friend gives me some pills, say barbiturates, for which I don't have a prescription, am I breaking the law?

A: You can be charged with possession of controlled drugs if you are caught with them.

Q: If I pick up a prescription of narcotic pills for a friend who is too sick to go to the pharmacy, and I'm arrested for some reason before I deliver them to my friend, will I still be charged with possession?

A: You may be charged with possession, but the charge will almost certainly be dropped if you can demonstrate that your motives were innocent.

Q: If I'm taken to an emergency room with overdose symptoms, will the hospital notify anyone—my family, for instance, or the police—of my condition and what caused it?

A: The hospital will try to notify your family if permissio is required for treatment and you are not in a conditio to authorize it. Whether police are notified depends o what drug was involved in the overdose, whether i was accidental or a suicide attempt, and whether mor drugs were found in your possession. Police and othe drug control agencies are usually informed when nar cotics are involved, but investigations usually don't g

far unless there is evidence of crimes more serious than possession. Often, when an overdose victim is found to possess a large quantity of drugs, perhaps in pockets or among other personal effects, the drugs are simply disposed of by hospital workers after a sample is analyzed to make sure the patient is being treated correctly. The police prefer that the drugs be destroyed in their presence to assure they are not diverted to someone else.

Q: Can I be thrown out of school for popping pills?

A: Yes, in most school districts. Even if school authorities don't notify police or other officials about your use of pills, they can suspend or expel you from school under a variety of local statutes or regulations.

Q: If I am with a friend who is arrested for possession of pills just bought "on the street," can I be arrested too?

A: It is no crime to be with somebody who illegally possesses drugs. But police sometimes arrest everybody in a group when one member has drugs, and determine afterward who should or shouldn't be charged with a crime. This procedure is usually supported by courts. If you were present when your friend bought the drugs, however, you may be arrested and prosecuted for having taken part in the illegal purchase.

Q: If I am high on pills and collapse on the sidewalk, and a police officer searching my pockets to check my identity finds a dozen or more illegal pills in my pocket, will the search be considered illegal and the evidence be thrown out of court?

A: Such searches are often called good Samaritan searches, where the purpose is to help someone who appears to be in trouble. Courts consider contraband discovered in such a search as legally obtained; the pills can be introduced as evidence in court.

Q: I talked to some office colleagues about getting narcotics illegally, but didn't join their plan to steal or sell drugs. Can I be accused of any crime?

A: Yes, you might be charged with violating one of several conspiracy laws, even if you didn't participate in the final outcome of the conspiracy.

FEDERAL CLASSIFICATION OF CONTROLLED SUBSTANCES: (ABBREVIATED SCHEDULE)

Schedule I	Schedule II	Schedule III
Stimulants: Amphetamine variants **Narcotic Analgesics:** Acetylmethadol (LAAM) Heroin **Hallucinogens:** Analogs of phencyclidine Ibogaine Lysergic acid-25 (LSD) Marijuana, hashish Mescaline Peyote Psilocybin, psilocyn Tetrahydrocannabinols	**Stimulants:** Amphetamine Cocaine Methamphetamine Methylphenidate Phenmetrazine **Sedatives/Depressants:** Amobarbital Methaqualone* Pentobarbital Secobarbital **Narcotic Analgesics:** Alphaprodine Anileridine Codeine Dihydrocodeine Ethylmorphine Etorphine (M99) Fentanyl Hydrocodone Hydromorphone Levorphanol Meperidine (pethidine) Methadone Morphine Opium Oxycodone Oxymorphone Phenazocine **Hallucinogens:** Phencyclidine	**Stimulants:** Benzphetamine Clortermine Mazindol Phendimetrazine **Sedatives/Depressants** Any compound containing an unscheduled drug and amobarbital, pentobarbital, or secobarbital Glutethimide Methyprylon **Narcotic Analgesics:** Acetaminophen + Codeine APC + Codeine Aspirin + Codeine Nalorphine Paregoric

Source: Bonnie Baird Wilford, *Drug Abuse, a Guide for the Primary Care Physician.* (Chicago: American Medical Association, 1981)

*Five states (Connecticut, Florida, Georgia, Mississippi, and New Jersey) classify methaqualone as a Schedule I drug.

	Schedule IV	Schedule V
	Stimulants: Diethylpropion Pemoline Phentermine **Sedatives/Depressants:** Barbital Chloral betaine Chloral hydrate Chlordiazepoxide Clonazepam Clorazepate Diazepam Ethchlorvynol Ethinamate Fenfluramine Flurazepam Mephobarbital Meprobamate Oxazepam Paraldehyde Pentazocine Phenobarbital Prazepam Propoxyphene Triazolam	Mixtures containing limited quantities of narcotic drugs, with nonnarcotic active medicinal ingredients. Less abuse potential than Schedule IV. Generally for antitussive and antidiarrheal purposes. May be distributed without a prescription order.

Q: Can a policeman search me for pills any time he wants to?

A: Certainly not. You cannot be searched unless you have been arrested, or have done something to clearly arouse the suspicions of the policeman. If you are in a car stopped for speeding or running a red light, you cannot be searched unless there is something clearly suspicious about the car or passengers (if it's a stolen car, for example). But if what appear to be drugs are in clear sight of the officer—on the car seat, for example—they can be confiscated, and a full search may legally follow.

Q: Under what circumstances can my teachers search me for drugs at school?

A: In general, teachers and school authorities have about the same rights as parents within the school facilities; but they will seldom subject students to a search unless there is a clear suspicion of drug usage. In some school districts, teachers and school administrators have a blanket authority to search desks and lockers whenever they wish.

Q. If I realize I'm hooked on pills, will I have to pay to get over my addiction?

A: If you need treatment quickly, you will probably have to pay a private clinic or doctor. While most areas have government-funded free clinics, most are understaffed, overcrowded, and underfunded. Some establish waiting lists, which can be months long, while others turn patients away without even taking their names (see pp. 87–91 for state-by-state list of drug abuse treatment programs).

Q: Can I be forced to participate in antidrug programs, or programs to stop addiction?

A: You cannot be "forced" to do so, but the alternatives made available to you—such as a jail sentence—may be so unpleasant that you will accept the option of a drug treatment program instead.

8

Lookalikes and Drugs of Deception

Lookalike drugs and drugs of deception are a recent but a growing part of the American drug-taking scene.

Lookalikes are tablets or capsules that resemble misused prescription drugs in shape, size, color, and/or markings, but do not contain the same ingredients or have the same effectiveness. The most common lookalikes are copies of amphetamine compounds, but instead of containing amphetamine, they contain caffeine, ephedrine, and/or phenylpropanolamine (PPA), an ingredient in many over-the-counter diet aid and decongestant products. These ingredients provide some stimulant effect but would be easily obtained without prescription, being available at much lower cost in a variety of products sold at supermarkets and drugstores.

Drugs of deception contain chemicals that require prescriptions when sold legally, but buyers can never be sure what chemicals they actually contain, and how much of each. A pill sold on the street as a barbiturate may really contain diazepam; another pill being pushed as amphetamine may contain a small amount of the amphetamine plus various untested ingredients.

The lookalike drug industry filled a vacuum inadvertently created by the 1970 Controlled Substances Act. The act (described in chapter 7) was the result of a growing recognition within the medical establishment and among lawmakers that existing laws had failed to adequately control drug abuse. The law created stiff penalties for illegal distribution of prescription drugs, but did not address misuse of nonprescription medications.

"Uppers" and "speed" had been widely misused in the preceding years, when they were frequently prescribed as appetite suppressants in weight control programs; for a

rare condition known as narcolepsy, which causes its victims to suddenly fall asleep for brief periods throughout the day; and for children suffering from what has been called abnormal behavior syndrome or hyperactivity. (The amphetamine compounds are now recognized as having only limited usefulness to dieters.)

By then, amphetamine had been widely used for nearly a century. It first appeared in the late 19th century; by the 1930s amphetamine compounds were sold as decongestant inhalants, but they were soon used also as antidepressants, stimulants and appetite suppressants. During World War II they were given freely to Allied and Axis soldiers to relieve fatigue.

THE ERA OF DIET PILLS (1950–70)

Much of the early amphetamine trade was controlled by Smith Kline & French Laboratories, creators of such famous products as Dexedrine, Dexamyl, Eskatrol, and Benzedrine. The amphetamine market boomed in the late 1950s and early 1960s as America became obsessed with slimming down and staying thin.

It seemed for a while that almost everyone was taking the little black or pink pills that kept them from getting hungry. Middle-class students used the pills to stay awake while cramming for exams. Truck drivers carried sacks of "whites" during long-haul trips.

By the mid-1960s, more than 66,000 kilograms of amphetamine compounds were being manufactured every year in the United States. Fully half were diverted from legitimate wholesale supply channels to street corners, schoolyards, offices, and factories. Street buyers identified the products they wanted by shape and color: little pink or peach-colored triangular pills called "hearts"; sleek black capsules dubbed "black beauties"; and various speckled ones known as "Christmas trees."

Hip users knew the generic names and chemical classifications too, along with brand names like Desoxyn, Dexamyl, Obetrol, and the favorite for injection by "speed freaks," fast-acting methamphetamine.

Only after years of amphetamine use—and misuse—was it widely acknowledged that "uppers" have a dangerous down side. The drugs were being ground into powder and

sniffed, or dissolved in water and injected. Psychological dependence and severe adverse effects were increasingly linked to high doses of amphetamine. Users were becoming more and more careless about dosage levels. Changes in perception caused by amphetamine led to many traffic deaths; the drugs created paranoia, with resultant suicide attempts; and violent crimes surrounding an amphetamine subculture increased dramatically. Establishment health officials and drug abuse specialists banded together to stem the soaring number of amphetamine abuse victims appearing in hospital emergency rooms.

GOVERNMENT STEPS IN

In 1970 the federal government took a strong stand on amphetamine. These drugs and some other stimulants were placed on Schedule II of the Controlled Substances Act, which lists drugs with a high potential for abuse and severely restricts their manufacture and distribution. The Food and Drug Administration immediately began limiting interstate shipments and banning imports from overseas. By 1972 the government had cut amphetamine production to less than 5 percent of what it had been a decade before.

One immediate effect of the new law was the birth of an underground industry producing poor-quality amphetamine for regular users. As manufacture of legitimate amphetamines plummeted, so did opportunities to steal or otherwise divert them from legal distribution systems. "Drugs of deception" and lookalikes became the replacement drugs of choice for many people turned on by stimulants.

The composition, purity, and potency of these "drugs of deception" are usually unknown to the user and vary from batch to batch. One pill bought "on the corner" may provide the desired high this week, but next week's supply may contain much less amphetamine, and three pills will be needed. Or the reverse may be true.

The potential for serious harm is apparent. If you're accustomed to popping a certain number of pills each day, and suddenly a much stronger supply comes along, you could become another overdose statistic at your local hospital emergency room—or coroner's office—without ever knowing why.

A scant 3 percent of all black market drugs of deception

contain any amphetamine whatsoever; the remaining 97 percent can also cause unexpected trouble. Without the quality control of legitimate manufacturing plants, the pills—with or without amphetamine—can and often do contain dangerous additives or impurities which cause severe reactions in susceptible users.

FAKE "SPEED" ON THE STREET

Reports of the "real stuff" being sold on the streets persisted and even escalated after the virtual outlawing of amphetamine in 1970. Drug clinics and government agencies continued hearing about black beauties, bennies, hearts, and dexies. Their prices had skyrocketed beyond the means of most users. (Now prices are low again because most users know that "blacks" are fake.)

Chemical analysis showed that much of the "speed" being pushed on the streets was some much milder stimulant like phendimetrazine, found in Plegine, or diethylpropion, used in Tepanil. These drugs were only listed in government's Schedule IV ("limited potential for abuse"). Their use as imitation "speed" has come under close FDA study, but they are not further restricted, in most states, and federal authorities do not consider stopping their sale on the street to be a law enforcement priority.

THE BIRTH OF LOOKALIKES

Even more of the street "amphetamine," analysis showed, contained no controlled drugs at all. This was the beginning of the lookalike drug market, which was to become a major industry with sales reported of almost $50 million in 1981.

According to some sources, it was William S. Saye, of Florida, who was the first to perceive a clear need among his fellow long-haul drivers for widely available, legal drugs to help them through long days and nights on the road. He obtained legal over-the-counter (nonprescription) diet aids and other caffeine-based stimulants from a New York drug manufacturer and sold them from his truck. Saye made good use of his CB radio, which most truckers install to warn each other of police speed traps. His CB handle was soon to become the newest nickname for the pills he sold: "Pea Shooter."

Within a few months the lookalike industry had spread across the nation. Manufacturers sprang up; students who couldn't obtain counterfeit speed containing a small amount of amphetamine or a similar drug spread the word about "legal speed." Lookalikes in a variety of shapes, colors, and strengths were suddenly being sold openly on college campuses, then through mail-order ads in magazines like *High Times* and *Penthouse,* and even at supermarket check-out counters.

The men and women marketing lookalike pills used clever sales promotions. Aware of the history of amphetamine, they made their pills in the image of their more powerful predecessors. "Black beauties" and "Christmas trees" were again widely sold, but this time with ingredients that anyone could buy at the local drugstore.

By 1980 more than 150 retail outlets and several mail-order establishments were known to be selling lookalikes which promised to curb appetite, eliminate fatigue, and be "100 percent safe." Advertising targets included not only the college-aged, but ever younger teens who were handed brochures at rock concerts and in their classrooms. Business cards were distributed by well-paid sales staffs.

The lookalike drugs contained, for the most part, a combination of phenylpropanolamine (PPA), ephedrine, and caffeine. PPA is an ingredient in over-the-counter diet aids such as Diadax, Dexatrim, and Dietac. (Note the similarities between the names of some nonprescription diet pills and the names of the all-but-banned amphetamine pills.)

By 1981 the size of the lookalike drug industry prompted federal authorities to take a closer look. A crackdown began, including FDA raids of manufacturing plants. Most raided pill-makers signed consent agreements to stop making the drugs in violation of several FDA regulations controlling their manufacturing and distribution, rather than endure long—and costly—court battles to stay in business.

But the lookalike industry didn't die. Some manufacturers went underground and continued their work in clandestine U.S. laboratories; their advertisements can still be found in a variety of publications.

Pricing of lookalike drugs is a problem. Since many people know that these illicit drugs are not the "real thing," buyers and sellers engage in extensive bargaining, and price wars periodically break out among sellers. The result

so far seems to be an ever harder push by sellers to increase their profit line by selling more pills.

The attempt to destroy the multimillion-dollar lookalike drug industry, which sprang from the government's concern for the health and safety of its citizens, may have caused its emergence as a powerful underworld drug force. Some experts have suggested that the industry is likely to make more money after being driven underground. With newfound wealth and a vast market, some observers foresee the introduction of new stimulants created by the corporate descendants of a truck driver who wanted to stay awake while driving at night, and wanted his fellow truckers to do the same.

HOW SAFE ARE LOOKALIKE INGREDIENTS?

The physical effects of the ingredients commonly found in lookalike drugs are well known; their intensity depends on the amount ingested, and this can vary dramatically from maker to maker, and from pill to pill.

The most controversial ingredient is PPA. Ephedrine, considered by some experts to be the most dangerous, was cited by the FDA as the main reason for shutting down one large manufacturer in 1982. Caffeine may be the most habit forming of the ingredients, but because it is used so widely in our society, it is unlikely to be seriously restricted.

CAFFEINE

Caffeine stimulates the central nervous system throughout the brain and in the spinal column. The amount of caffeine in a typical lookalike pill ranges from 37 to 320 milligrams.

For comparison, a cup of coffee contains about 100 to 150 milligrams; a cup of tea, 60 to 75; a 12-ounce glass of a cola drink, 40 to 60. Experience indicates that 150 to 200 milligrams of caffeine is a safe dose for adults.

Precautions

Ulcers may be reactivated, and blood sugar levels increased, by caffeine use.

Common Side Effects

More than 200 milligrams of caffeine can result in nervousness, insomnia, and restlessness.

Severe Adverse Effects

Heart palpitations; nausea; impaired thinking; vomiting; rapid pulse; dizziness; stomach irritation; diarrhea; and muscular tremors. Doses of 500 milligrams or more may bring about extreme reactions resembling psychosis. Excessive urination can also occur.

Interactions

Birth control pills appear to interfere with the elimination of caffeine from the body, allowing higher concentrations to build up and leading to increased possibility of overdose.

Dependence and Addiction

Caffeine is widely recognized as habit forming. Excessive use may lead to tolerance and a mild withdrawal syndrome.

Withdrawal Symptoms

Headaches, depression, anxiety, and muscle weakness may be experienced after heavy caffeine usage is suddenly discontinued.

Withdrawal Treatment

Treatment of caffeine withdrawal is seldom required. The symptoms normally pass within a few days.

Overdose Symptoms and Treatment

Convulsions may occur if more than 10 grams (10,000 mg) of caffeine are consumed within a short period of time. Forcing the victim to vomit is usually the first stage of treatment, followed by psychological support from family, friends, and medical personnel.

Usage in Pregnancy

Excessive caffeine has been associated with premature births and increased fetal deaths. Birth defects have been noted

in the offspring of laboratory rats fed high doses of caffeine. Pregnant women should avoid all products containing caffeine.

Usage During Breast Feeding

Not recommended. Caffeine appears in the breast milk of nursing mothers.

Usage by the Elderly

Tolerance to caffeine often decreases after 60. Side effects and adverse effects may be more pronounced.

Usage by Children

The dangers from caffeine are greater among children than among adults. Adults eliminate half the caffeine they consume within 4 hours, but infants take 4 to 6 days.

Dosage

Although the potentially lethal dose of caffeine is about 100 cups of coffee—that is, 30 or more powerful lookalike stimulant pills—users should remember that many products contain caffeine, and that high doses can be unknowingly accumulated.

EPHEDRINE

Ephedrine works by releasing a naturally occurring body chemical which acts as a central nervous system stimulant, causing the small blood vessels to contract and increasing blood pressure, heart rate, blood circulation, and metabolism.

Precautions

Anyone suffering from diabetes, prostatic problems, hypotension, angina pectoris, or chronic heart disease should not use ephedrine except under medical supervision. Some people are hypersensitive to this drug; you should avoid ephedrine if you have any reason to suspect you might be allergic to it.